

US EPA RECORDS CENTER REGION 5



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## SCREENING SITE INSPECTION REPORT

**CARR LANDFILL  
BRADNER, OHIO  
OHD 986 966 521**

### FINAL REPORT

Prepared for

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
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## **1.0 INTRODUCTION**

PRC Environmental Management, Inc. (PRC), was tasked by the U.S. Environmental Protection Agency (EPA) Region 5 to conduct a screening site inspection (SSI) of the Carr Landfill (Carr) site under Contract No. 68-W8-0084, Work Assignment No. 29-5JZZ.

### **1.1 PROJECT BACKGROUND**

The Carr site was initially discovered in 1986 by the Seneca Wire Company of Fostoria, Ohio when they realized coal waste from their facility deposited at the Carr site contained high levels of lead. The Ohio Environmental Protection Agency (OEPA) performed a preliminary assessment (PA) report for the site in July 1990 (EPA, 1990).

On November 7, 1991, PRC conducted a reconnaissance inspection at the Carr site. PRC then prepared an SSI site-specific implementation plan (SSIP) for the Carr site and submitted it to EPA for approval. The SSIP was approved by EPA on January 9, 1992. The sampling visit at the Carr site was conducted on January 22, 1992.

The reconnaissance inspection included an interview with a site representative and a visual inspection of the site. During the sampling visit, 12 soil samples, one monitoring well sample, and three residential well samples were collected.

### **1.2 PURPOSE**

The purpose of an SSI is to collect information concerning conditions at the Carr site to assess the threat posed to human health and the environment, and to determine the need for additional investigation under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). Specific objectives of an SSI are as follows:

- To collect data to evaluate sites using the Hazard Ranking System (HRS)
- To screen out sites that will not score high enough using the HRS to be proposed for the National Priorities List (NPL)
- To identify sites that may require removal actions to address immediate threats to human health and to the environment

The SSI is the first investigation performed to collect and analyze waste and environmental samples to support HRS scoring. Sampling locations are strategically chosen to

identify hazardous substances present, determine whether or not contaminants are being released to the environment, and determine whether or not targets have been exposed to site-related contaminants.

After the SSI, EPA, in consultation with state authorities, shall determine if the site should undergo further investigation (resulting in possible NPL consideration), or be designated as having the site evaluation accomplished (SEA). The SEA designation means that, based on information available at the time of the SEA designation, no additional investigations will be conducted. However, if new site information is brought to the EPA's attention, the site may be reevaluated. For sites warranting further investigation under CERCLA and SARA authority, an HRS scoring package may be prepared after the SSI if the resulting data is sufficient. However, some sites will require an additional investigation (i.e., an expanded site inspection) to collect specific sampling data and target information sufficient to support an HRS score of 28.5 or greater needed for proposal to the NPL.

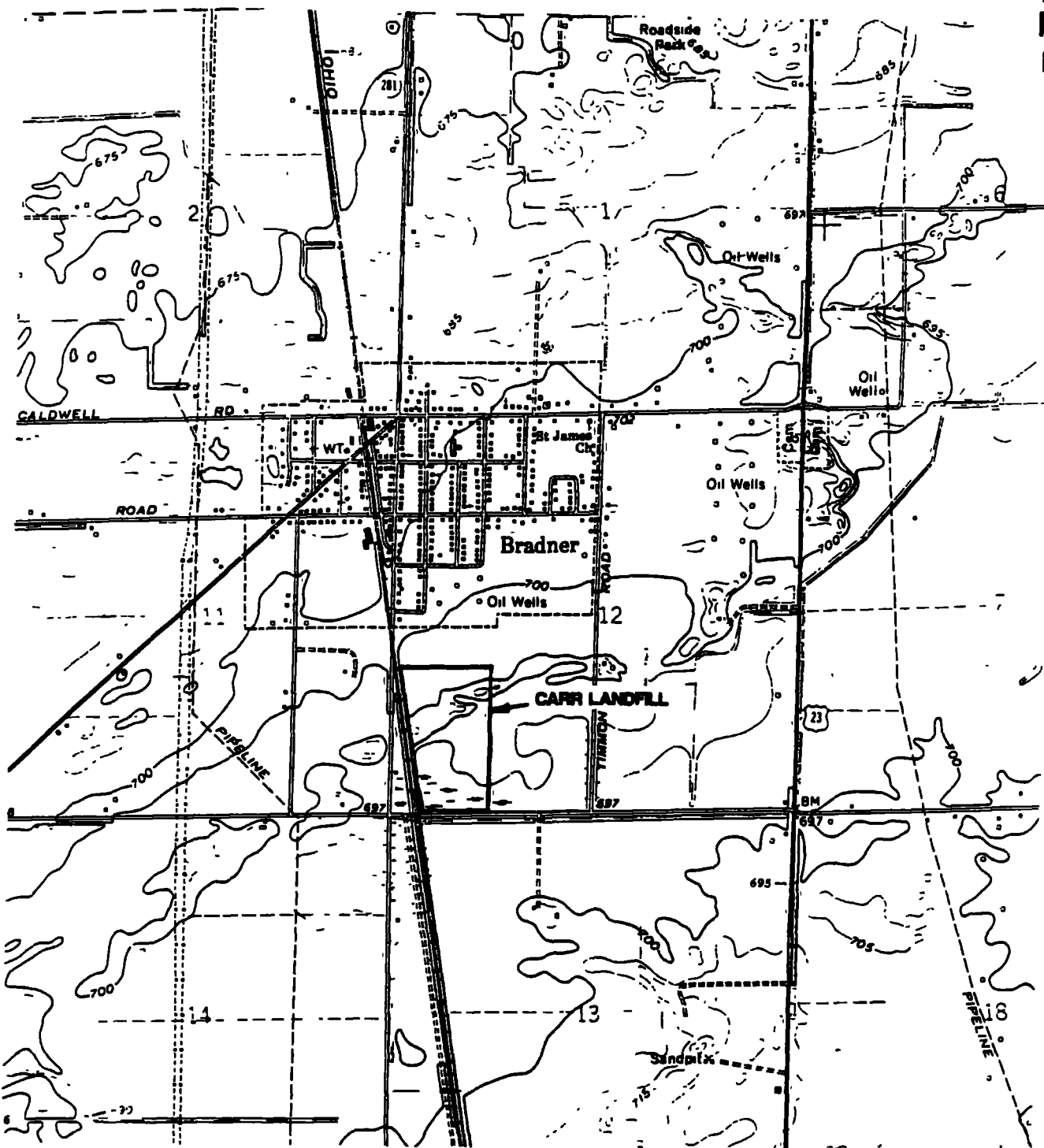
## **2.0 SITE BACKGROUND**

This section presents information on the site's description and history, including information on site operations, waste streams, release history, and previous removal actions. This section is based on available file information, the site representative interview, and the site inspection.

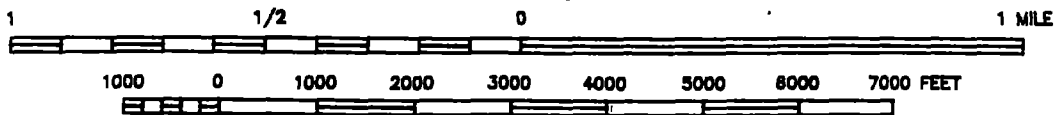
### **2.1 SITE DESCRIPTION**

The Carr site is located at the intersection of Greensburg Pike and the Chesapeake and Ohio (C & O) Railroad tracks, east of Bradner Road. The property is in a rural area due south of the town of Bradner, in Wood County, Ohio. The Carr property covers approximately 30 acres and consists of a 4-acre landfill, 16 acres of wooded area, and 10 acres of farm land. The property is currently used for agricultural and livestock purposes. The site is bordered on the north and east by woods, on the south by Greensburg Pike, and on the west by the C & O Railroad and residences. Figure 1 shows the site location.

The topography of the area is flat with a slight rise to the north and west toward a sand ridge. The sand ridge is part of an ancient shoreline of glacial Lake Warren.



SCALE 1:24,000



SCALE: 1" = 2,000'



QUADRANGLE LOCATION

CARR LANDFILL  
BRADNER, OHIO

FIGURE 1  
SITE LOCATION

**PMC** ENVIRONMENTAL MANAGEMENT, INC.

CARR.DWG - 7/19/92 - MJB

SOURCE: MODIFIED FROM USGS BRADNER, OHIO QUADRANGLE 1989

## **2.2**

### **SITE HISTORY**

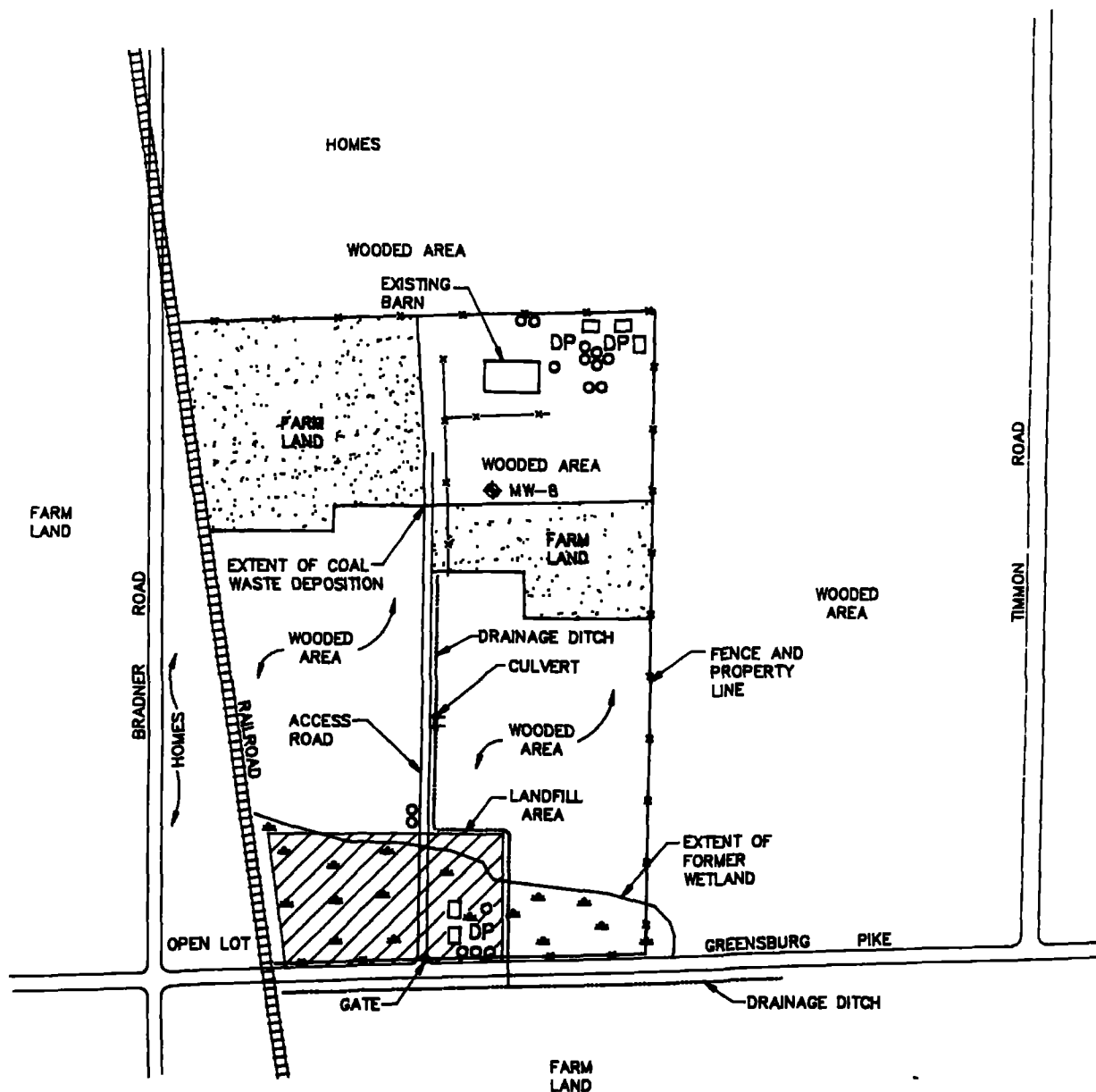
In 1973, the previous property owner, Elden J. Allen, sought to fill in a low, swampy area at the southern end of the property. Mr. Allen proposed to use carbon waste products from the Union Carbide Corporation of Fostoria, Ohio as fill material (OEPA, 1973b) (see Figure 2). The fill was intended to provide a roadway to farmland located at the north end of the property. OEPA determined that the waste was defined as a solid waste and that Mr. Allen would need to develop and license a solid waste landfill (OEPA, 1973b). Mr. Allen began filling the low area with construction debris but did not pursue carbon waste disposal (OEPA, 1973a).

On December 23, 1977, Mr. Allen sold the property for \$1.00 to Robert Carr, the current site owner (Wood County, 1978). Mr. Carr continued to use the northern portion of the property for agriculture and to fill the low area with construction debris and materials from county ditch cleaning. The construction debris consists of concrete, brick, soil, wood, and other materials. County ditch maintenance crews may have placed soil materials into the landfill. Local farmers used the area to dispose of old farm machinery, construction debris, rocks, and boulders (PRC, 1991). The average depth of the fill ranges from 2 to 5.5 feet (Bowser-Morner, 1987b).

Sometime between 1978 and 1985, lead-contaminated coal waste was deposited in and around the landfill. This material came from the Seneca Wire & Manufacturing Company (Seneca Wire) facility in Fostoria, Ohio. The coal waste, a granular material, was mostly used as a 1,500 foot long main access road from Greensburg Pike at the south end of the property to the farm land located at the north (Bowser-Morner, 1987a). Mr. Carr worked for Seneca Wire during the time the coal waste was deposited in the landfill (PRC, 1991).

In late 1986, Seneca Wire realized that the coal waste contained high levels of lead (EPA, 1990). Seneca Wire retained Bowser-Morner Associates, Inc. (Bowser-Morner), of Toledo, Ohio, to study and remediate lead contamination at the Carr site. Bowser-Morner installed three shallow monitoring wells at the site. Lead was reportedly not detected in any of the ground-water samples collected from the monitoring wells. No wells were installed in the bedrock aquifer utilized for drinking water in the site vicinity (Bowser-Morner, 1987b). Bowser-Morner concluded that negligible lead migration to the soil had occurred and that no lead migration to the ground water had occurred because of the site's relatively impermeable soils and high pH (Seneca Wire, 1987).

Bowser-Morner began coal waste removal in late 1987 and completed the coal waste removal in January 1988. Approximately 1,932 cubic yards of coal waste was removed from the



**LEGEND**

- DP DEBRIS PILE
- o DRUM LOCATION
- ABANDONED VEHICLE
- ◆ MONITORING WELL



CARR LANDFILL BRADNER, OHIO
<b>FIGURE 2</b> <b>SITE FEATURES</b>
<b>PNC</b> ENVIRONMENTAL MANAGEMENT, INC.

CARR-2.0.WG - 7/19/92 - GFR

SOURCE: MODIFIED FROM BOWSER-MORNER, 1987b

site. Bowser-Morner manifested and disposed of the waste at the Four County Landfill in Rochester, Indiana, a licensed hazardous waste disposal facility (Bowser-Morner, 1987b). Coal waste was removed from the entire length of the access roadbed at an average width of 25 feet and an average depth of 2 feet. Coal waste was removed from a ditch running parallel to the road near a culvert that was composed entirely of coal waste. Coal waste was also removed from three areas east of the road in the landfill. Crushed limestone was used to regrade the access road and the culvert; excavations in the landfill were filled with rubble and clean fill from the north edge of the landfill. Bowser-Morner concluded that an unknown amount of concentrated coal waste remains in the roadway and in the landfill east of the road but that this waste is present at significantly reduced levels (Bowser-Morner, 1988).

In 1988, after the removal action, Bowser-Morner collected six surface soil samples along the access road. Lead concentrations of 1,425 to 148,000 milligrams per kilogram (mg/kg) were detected in the samples; the background concentration of lead was assumed to be 100 mg/kg. Extraction procedure (EP) toxicity test results for the six soil samples ranged from 1.7 milligrams per liter (mg/L) to 522 mg/L. Five out of the six soil samples indicated EP toxicity levels of lead above the EPA hazardous waste limit of 5.0 mg/L (Bowser-Morner, 1988). No additional removal activities were conducted after these soil samples were collected.

The site owner stated that the landfill portion of the property contains mostly leaves, trees, stones, bricks, and construction debris. He also stated that people have broken the lock to the access road gate and disposed old appliances and farm machinery on his property. The site owner does not consider the 4-acre parcel to be a landfill but rather a filled-in, low-lying swamp, which he has completed filling. Two portions of the property north of the landfill are currently used to raise crops for feeding livestock raised in an on-site barn. The livestock is sold at a market in Fostoria, Ohio where they are slaughtered for human consumption (PRC, 1991).

### **3.0 FIELD OBSERVATIONS, SAMPLING PROCEDURES, AND ANALYTICAL RESULTS**

This section outlines field observations, analytical results, and sampling procedures at the Carr site. Individual subsections address the reconnaissance inspection, sampling locations, and analytical results. Rationales for specific SSI activities are also provided. The SSI was conducted in accordance with the EPA-approved SSIP dated January, 1992 and the EPA approved Quality Assurance Project Plan (QAPjP) dated October 7, 1991. The EPA Potential Hazardous Waste Site Inspection Report Form 2070-13 for the Carr site is provided in Appendix A.

### **3.1**

## **RECONNAISSANCE INSPECTION**

On November 7, 1991, PRC conducted a reconnaissance inspection of the Carr site. The reconnaissance inspection consisted of an interview with the site owner and a visual inspection of the site. The interview was conducted to gather information that would aid PRC in conducting other SSI activities.

PRC conducted the visual inspection of the Carr site and surrounding area in accordance with PRC health and safety guidelines. The visual inspection was conducted to determine appropriate health and safety requirements for conducting on-site activities and to make observations to aid in characterizing the site. PRC also selected sampling locations during the reconnaissance inspection. PRC was not accompanied by the site representative during the inspection. The following are specific site features and observations made during the inspection. Figure 2 shows significant site features. Photographs taken during the visual inspection are included in Appendix B.

Carr's property is 30 acres and consists of the 4-acre landfill, 16 acres of wooded area, and 10 acres of farm land. A 4-foot-high fence and gate deters site access from Greensburg Pike at the south end of the property. The fence also deters site access from the east and north sides of the property. No fence exists along the west side of the property.

The north side of the property consists of farm land and a barn for livestock (hogs). Approximately 80 yards east of the barn, PRC observed seven 55-gallon drums, several abandoned vehicles, and scrap piles. One drum was labelled "Hanna Chemical Coatings, Hanna Paint Manufacturing, Columbus, Ohio" (Hanna). Most of the drums contained solid material and their labels had rusted off. Near the barn, PRC observed an open 35-gallon drum containing an oily material. Two additional Hanna drums were observed directly north of the barn along the property's northern fence line. One of these drums had an open bung, but both were on their sides, contained solid material, and the labels were legible.

PRC contacted Hanna Chemical Corporation (now doing business as AKZO Chemicals) to find out information about the drums observed on site. AKZO personnel confirmed that the green drums seen on site were used by Hanna for products during the early 1970s. This would imply that drums arrived at the site during the time that Eldon J. Allen owned the property. The product in these types of drums was sold to industrial clients only and would not have been sold to household consumers. No documentation exists showing that Hanna ever contracted with Eldon J. Allen or Robert Carr to haul wastes in the 1970s (PRC, 1992a).

PRC inspected the woods at the property's midsection. Bowser-Morner indicated three monitoring wells exist in the woods, but PRC was only able to locate the well east of the access road. Based on a thorough inspection of the areas where the other two monitoring wells were installed, it appears that either these wells were removed or the well casings were flush-mounted. The site owner was not able to locate the wells. PRC observed two open, bulging drums similar to the other green Hanna drums at the south end of the woods on the west side of the access road. One had an open bung, both were on their sides, contained solid material, and the labels were illegible.

The access road is constructed of limestone gravel. PRC located the culvert that had been replaced with limestone gravel during previous removal activities. This gravel extends approximately 5 feet east of the culvert. The culvert drains the west side of the property into a drainage ditch that runs along the east side of the access road.

PRC observed the 4-acre landfill area. It is composed mainly of construction debris and stones. The area east of the access road has been graded by a bulldozer and farm machinery. Other debris has been placed on the road. At the south end of the landfill, PRC observed several more drums, one of which had a spigot on it and appeared to have been burned. The landfill is bordered on the north and east by woods, on the south by Greensburg Pike, and on the west by the C & O Railroad. The west side of the landfill is composed of hills of asphalt blocks that are becoming vegetated. PRC did not observe wetland vegetation or obvious wetland conditions anywhere on site.

### **3.2 SAMPLING LOCATIONS**

PRC collected 3 residential well, 1 monitoring well, and 12 soil samples on January 22, 1992. These samples were collected at locations selected during the reconnaissance inspection. PRC offered the site representative portions of each sample collected during the SSI, but the site representative did not accept them. Photographs of sampling locations are included in Appendix B.

Standard quality assurance and quality control procedures for SSI field activities were followed during the collection of all samples. These procedures, including sample collection, packaging, shipping, and equipment decontamination, are documented in the EPA-approved generic QAPjP.

### 3.2.1 Residential Well Samples

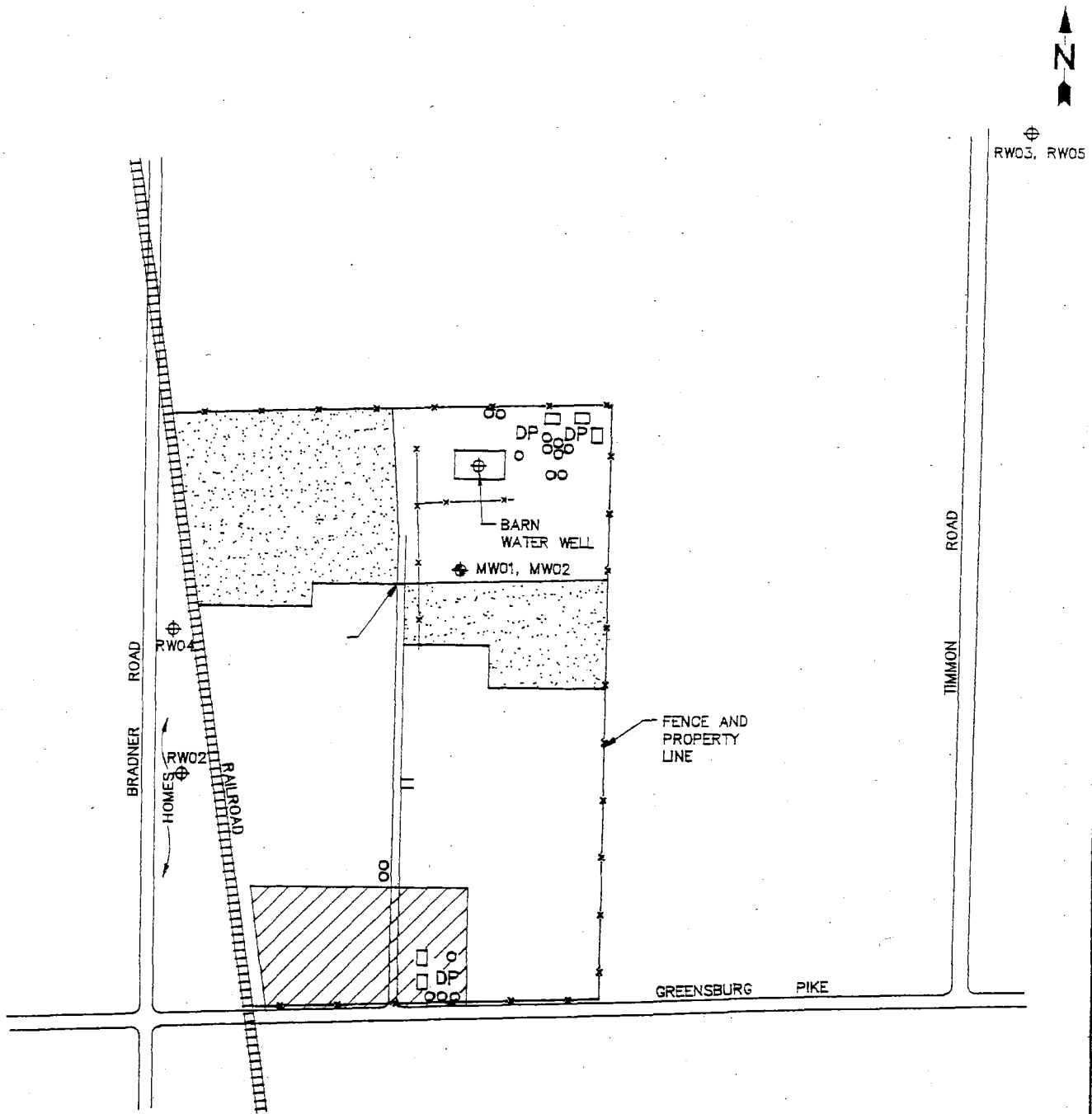
On January 22, 1992, PRC collected three residential well samples and one duplicate residential well sample. Residential well samples were collected from wells hypothesized to be primary targets of contamination from the Carr site. All residential well samples were collected directly from the tap; none were filtered. See Figure 3 for residential well sampling locations. The following table presents the addresses for each residential well sample:

<u>Residential Well Sample Number</u>	<u>Address</u>
RW02	Bradner, OH 43406
RW03	Bradner, OH 43406
RW04	Bradner, OH 43406
RW05	Bradner, OH 43406

PRC planned to collect residential well sample RW01 from an on-site well located in the barn at the north end of the property. This sample could not be collected because the generator that provides electricity to the barn and the well pump had been stolen prior to the sampling visit.

Residential well samples RW02 and RW04 were collected west of the Carr property from households on the east side of Bradner Road. These locations were selected because of their proximity to the site and their potential to be downgradient of the site. The resident from whose well sample RW04 was collected indicated the well is 90 feet deep. Based on the geology of the area and well log (see Appendix C, well logs 1 and 2), these wells are screened in the bedrock aquifer.

Residential well samples RW03 and RW05 were collected from a household well approximately 2,000 feet northeast and upgradient of the site. Sample RW05 was a duplicate sample of sample RW03. The resident indicated that the well is approximately 60 feet deep. Based on the geology of the area, this well is most likely screened in the bedrock aquifer.



### LEGEND

- DP DEBRIS PILE
- o DRUM LOCATION
- ABANDONED VEHICLE
- ⊕ MONITORING WELL
- ⊕ RESIDENTIAL WELL

CARR LANDFILL  
BRADNER, OHIO

**FIGURE 3**  
GROUND-WATER SAMPLING LOCATIONS

**PRC** ENVIRONMENTAL MANAGEMENT, INC.

250' 0 250' 500'

SOURCE: MODIFIED FROM BOWSER-MORNER, 1987b

Trip blank samples RWTB01 and RWTB02 were shipped with the organic fractions of the residential well samples to monitor volatile organic compound contamination attributable to other sources during the transport of samples.

### **3.2.2 Monitoring Well Samples**

PRC collected monitoring well samples MW01 and MW02 from the on-site monitoring well on the north side of the property. Sample MW02 was a duplicate sample of MW01. The well is approximately 9.5 feet deep (Bowser-Morner, 1987a). Depth to water in the well at the time of the sampling visit was about 5 feet. The inorganic fractions of these samples were filtered with a peristaltic pump and filter paper having a pore size of 0.45 microns. Monitoring well samples were collected to determine if hazardous substances have been released to the ground water from the Carr site. See Figure 3 for monitoring well sample locations.

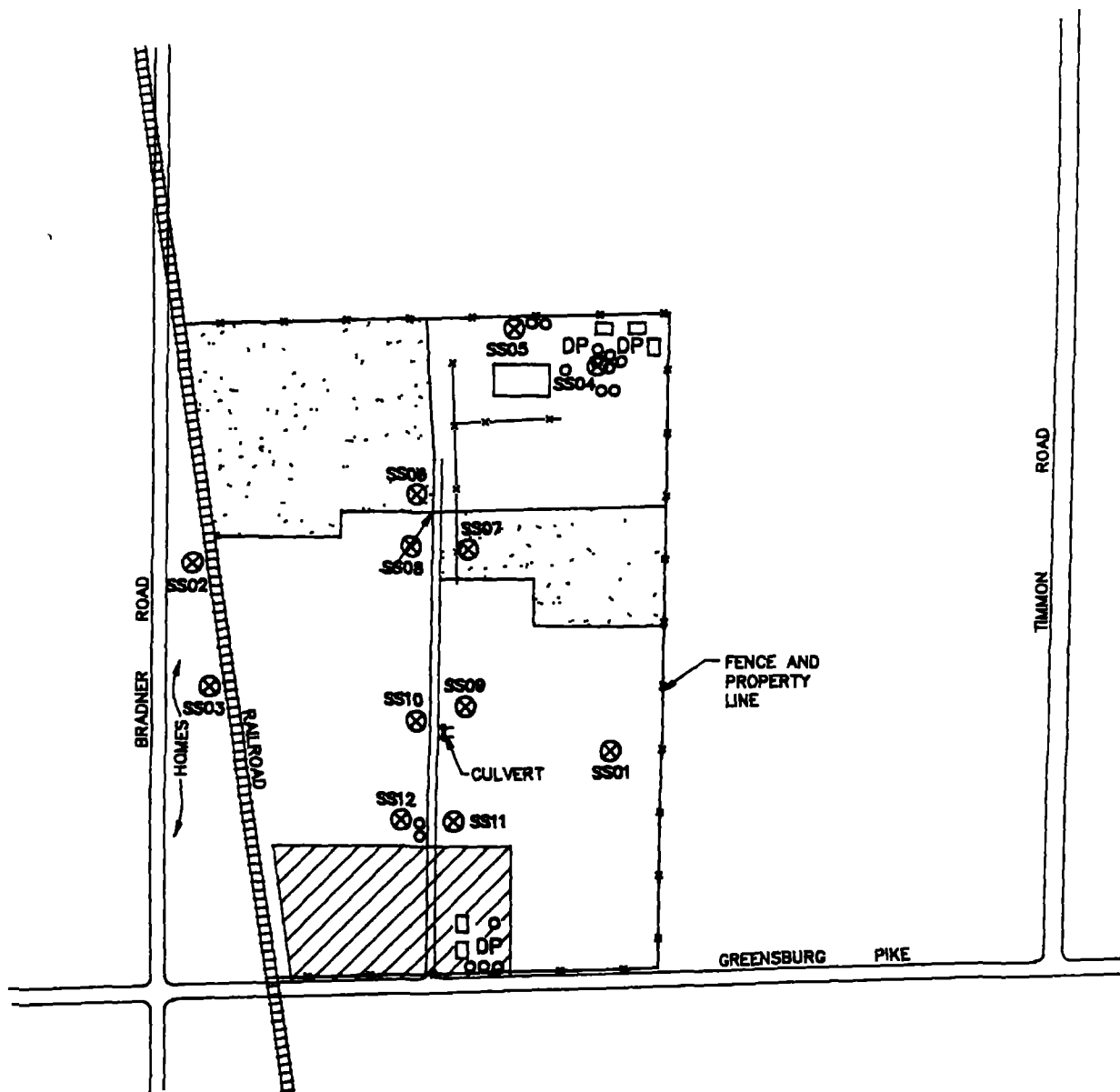
### **3.2.3 Soil Samples**

PRC collected two off-site soil samples and 10 on-site soil samples during the sampling visit. Soil samples from off-site residential locations were collected to determine whether contaminated particulate matter has blown off site to nearby properties. On-site soil samples were collected to identify hazardous substances associated with wastes deposited on site and to document the extent of contamination. See Figure 4 for soil sampling locations.

Soil sample SS01 was collected on the east side of the Carr property in a wooded area that appeared undisturbed. SS01 was collected between 2 and 4 inches below ground surface (bgs). The sample was collected to establish background concentrations of soil constituents with which to compare on-site soil samples.

Soil samples SS02 and SS03 were collected off site from residences located due west of the property on the east side of Bradner Road. These locations correspond with residential well samples RW04 and RW02. Approximately 3 inches of snow covered the ground at the time of collection. This snowcover prevented the ground from freezing, which aided in sample collection. These samples were collected between 2 to 4 inches bgs. SS02 and SS03 were collected to identify whether residential surface soils have become contaminated by windblown particulates at the site.

Soil samples SS04 and SS05 were collected near the drums located east and north of the barn. Samples were collected from locations near drums containing solids and that had holes



### LEGEND

- DP DEBRIS PILE
- DRUM LOCATION
- ABANDONED VEHICLE
- ⊗ SOIL SAMPLE LOCATIONS

CARR LANDFILL  
BRADNER, OHIO

**FIGURE 4**  
**SOIL SAMPLING LOCATIONS**

**PMC** ENVIRONMENTAL MANAGEMENT, INC.

250' 0 250' 500'

rusted in them. Samples were collected a few inches from each drum between 2 to 4 inches bgs. The sampling team noted organic gasoline-like odors while collecting soil sample SS05. These samples were collected to identify hazardous substances associated with drum contents.

Soil samples SS06 and SS07 were collected in the western and eastern farm lands, respectively. These locations were under approximately 3 inches of snow, but the soil was not frozen. Soil sample SS06 was collected approximately 20 feet west of the access road and just north of the estimated northern extent of coal waste deposition. Soil sample SS07 was collected approximately 20 yards east of the access road. Both samples were collected between 2 and 4 inches bgs. These samples were collected to determine if residual lead contamination is present in the farm land used to grow feed for the livestock.

Soil samples SS08 through SS12 were collected along and on alternate sides of the access road. These samples were collected to identify hazardous substances present at the site. Even-numbered samples were collected on the west side of the access road, and odd-numbered samples were collected on the east side of the access road. All samples were collected outside the limestone fill area between 2 and 6 inches bgs.

Soil sample SS09 was collected northeast of the culvert on the east side of the access road. Limestone fill extends approximately 6 feet east from the access road in this area. The sample was collected approximately 1 foot east of the limestone fill boundary. Beneath 1 inch of topsoil, the sampling team encountered 3 to 4 inches of a small, gray pebble-like material underlain by more black soil. This material fit descriptions of the leaded coal waste. This same stratigraphy was encountered approximately 6 feet east of this sample location.

Soil sample SS12 was collected by the two rusted drums containing solids located 20 yards north of the landfill. This sample was collected to identify hazardous substances that may have leaked from the drums.

Samples were not collected in the landfill area of the site. Snow cover during the reconnaissance and sampling visits and the amount of construction debris hampered sample location selection in the landfill area.

### **3.3 ANALYTICAL RESULTS**

Residential well, monitoring well, and soil samples were analyzed through the EPA Contract Laboratory Program (CLP). The laboratories analyzed the samples for volatile organic compounds, extractable semivolatile organic compounds, pesticides, polychlorinated biphenyls

(PCB), metals, and cyanide. All the substances analyzed for are included on the EPA Target Compound List (TCL) and Target Analyte List (TAL).

Residential and monitoring well sample analyses do not indicate any ground-water contamination attributable to the Carr site. Significant findings of soil sample analyses are provided in Table 1. Complete analytical results for residential well, monitoring well, and soil samples are provided in Tables 2, 3, and 4, respectively. The results were reviewed by EPA for compliance with the terms of the CLP, and the data has been approved by EPA. PRC also evaluated the data for its usability and did not note any necessary changes to the reported results.

### **3.3.1 Residential Well Samples**

Residential well sample analyses do not indicate that contaminants attributable to the Carr site are present in the private wells sampled by PRC. Lead was detected in sample RW02 at 3.0 micrograms per liter ( $\mu\text{g/L}$ ), but the detected concentration is not significant because it did not exceed the contract-required detection limit. Lead was not detected in samples RW03, RW04, and RW05. Several inorganic analytes were detected, but none exceeded background concentrations.

Based on ground surface topography, the location of RW03 and the duplicate, RW05, may be hydraulically upgradient of the Carr site. In addition, the location of RW03 and RW05 is farther from the site than the locations of RW02 and RW04. Therefore, samples RW03 and RW05 are considered representative of background ground-water conditions and samples RW02 and RW04.

No organic compounds or inorganic analytes detected in downgradient well samples can be attributed to the Carr site. Acetone was detected in RW04 at 10  $\mu\text{g/L}$ , but it was detected in trip blank sample RWTB02 at 28  $\mu\text{g/L}$ , indicating the acetone may have been introduced during sample shipment or sample container storage. Acetone is also a common laboratory contaminant and may be attributable to sample exposure to laboratory solvents. No other organic compounds were detected in downgradient samples RW02 and RW04.

### **3.3.2 Monitoring Well Samples**

Monitoring well sample analyses indicate that some inorganic substances may be reaching shallow ground water at the site. Acetone was detected in duplicate sample MW02, the field

TABLE 1  
SIGNIFICANT FINDINGS OF SOIL SAMPLE ANALYSES

SAMPLE NUMBER	SS01	SS02	SS03	SS04	SS05	SS06	SS07	SS08	SS09	SS10	SS11	SS12	
TIME	1820	1030	1145	1450	1500	1510	1520	1545	1605	1555	1850	1845	
DATE	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	
Organic Traffic Report No	ERD33	ERD34	ERD35	ERD36	ERD37	ERD38	ERD39	ERD40	ERD41	ERD42	ERD43	ERD44	
Inorganic Traffic Report No.	MENE74	MEKH85	MENE75	MEKH86	MEKH87	MEKH88	MEKH89	MENE76	MENE77	MENE78	MENE79	MENE80	
COMPOUND DETECTED CRQL (MICRIGRAM PER KILOGRAM -- mg/Kg)													
SEMIVOLATILE ORGANIC COMPOUND													
phenanthrene	330	7J	85J	51J	31J	63J	31J	14J	45J	720J	63J	300J	32J
fluoranthene	330	ND	150J	85J	44J	130J	40J	15J	42J	ND	40J	420J	37J
benzo(a)anthracene	330	ND	76J	63J	25J	81J	26J	ND	30J	870J	26J	280J	23J
benzo(b)fluoranthene	330	ND	180J	100J	56J	140J	47J	ND	ND	ND	ND	450J	51J
benzo(k)fluoranthene	330	ND	180J	100J	56J	140J	47J	ND	ND	ND	ND	450J	151J
PESTICIDES/PCB													
gamma-BHC (Lindane)	1.7	ND	ND	ND	ND	ND	8.5	ND	ND	ND	ND	ND	ND
ANALYTE DETECTED CRDL (g/Kg)													
barium	40	87.00	13.308	87.30	24.508	27.308	20.208	18.508	55.50	583.00	66.70	121.00	45.20
copper	5	24.40	18.20	32.70	4.808J	10.70	41.108J	6.208J	16.00	83.10	20.30	34.00	18.80
lead	0.8	39.20	21.70J	23.50	11.70J	108.00	80.20	1030.00	21800.00	258000.00	8440.00	288.00	804.00
magnesium	1000	1880.00J	4110.00J	8850.00J	436.008J	387.008J	324.008J	424.008J	22000.00J	2810.00	1070.00J	6820.00J	18200.00J
zinc	4	48.50	105.00	98.10	18.70	203.00	15.50	38.90	178.00	1880.00	158.00	128.00	59.80

1 CRQL = Contract-required quantitation limit

2 ND = Not detected

3 NA = Not available

4 CRDL = Contract-required detection limit

TCL COMPOUND QUALIFIERS	DEFINITION	INTERPRETATION
J	Indicates an estimated value	Compound value may be semiquantitative
P	This flag is used for pesticide and Aroclor compounds when there is a greater than 25% difference for detected concentrations between two gas chromatograph columns. The lower of the two values is reported.	Value may be semiquantitative and identity of compound may be questionable
X	This qualifier is specific for benzo(b)- and benzo(k)fluoranthene results. The chromatographic resolution did not allow the two compounds to be quantitated separately. The reported value is the combined amount of benzo(b) and benzo(k) fluoranthene.	The reported value is quantitative for the total of these two compounds
TAL ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
N	Duplicate injection precision not met	Value may be semiquantitative
B	Value is real, but is above instrument detection limit and below contract-required detection limit	Value may be quantitative or semiquantitative

TABLE 2  
SUMMARY OF RESIDENTIAL WELL SAMPLE ANALYSES

SAMPLE NUMBER	RW02	RW03 (Background)	RW04	RW05 (Duplicate of RW03)	RWTB01	RWTB02
TIME	1200	1730	1045	1730	0955	0955
DATE	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92
ESTIMATED DEPTH (feet below ground surface)	~ 90 FT	~ 60 FT	~ 90 FT	~ 60 FT	Not applicable	Not applicable
Organic Traffic Report No.	ERD26	ERD27	ERD28	ERD29	ERD30	ERD31
Inorganic Traffic Report No.	MENE69	MENE70	MENE71	MENE72	Not applicable	Not applicable
<b>COMPOUND DETECTED CRQL ( MICROGRAM PER LITER - ug/L )</b>						
<b>VOLATILE ORGANIC COMPOUND</b>						
acetone	10	ND <sup>2</sup>	ND	10	ND	28
carbon disulfide	10	ND	2	ND	ND	ND
chloroform	10	ND	ND	ND	ND	0.7J
<b>ANALYTE DETECTED CRDL (ug/L)</b>						
aluminum	200	5	11	4	11	NA
barium	200	220.0	349.0	171.0	347.0	NA
cadmium	5	ND	ND	4	4	NA
calcium	5000	61900.01	73600.0	62500.0	73500.0	NA
copper	25	6.6	13.3	ND	11.4	NA
iron	100	803.0	1390.0	783.0	1280.0	NA
lead	3	3	ND	ND	ND	NA
magnesium	5000	29300.0	18000.0	26100.0	18000.0	NA
manganese	15	ND	6.2	5.7	6.4	NA
sodium	5000	14400.0	3890.0	13200.0	3860.0	NA
zinc	20	99.7	109.0	53.0	101.0	NA

- <sup>1</sup> CRQL = Contract - required quantitation limit  
<sup>2</sup> ND = Not detected  
<sup>3</sup> CRDL = Contract - required detection limit  
<sup>4</sup> NA = Not Applicable

TCL COMPOUND QUALIFIERS	DEFINITION	INTERPRETATION
J	Indicates an estimated value	Compound value may be semiquantitative

TABLE 3  
SUMMARY OF MONITORING WELL SAMPLE ANALYSES

SAMPLE NUMBER	MW01	MW02 (Duplicate of MW01)	FELD BLANK	MW TRIP BLANK
TIME	1130	1130	1230	0830
DATE	01/22/92	01/22/92	01/22/92	01/22/92
ESTIMATED DEPTH (feet below ground surface)	5 to 9	5 to 9	NA	NA
Organic Traffic Report No.	ERD21	ERD22	ERD23	ERD24
Inorganic Traffic Report No.	MENAB1	MENAB2	MENAB3	Not applicable
APPEARANCE	Brown, Cloudy	Brown Cloudy	Clear	Clear
<b>COMPOUND DETECTED CRQL (MICROGRAM PER LITER - ug/L)</b>				
<b>VOLATILE ORGANIC COMPOUND</b>				
acetone	10	ND	7J	22
ANALYTE DETECTED	CRDL (ug/L)			
aluminum	200	ND	85.7B	ND
arsenic	10	2.00B	ND	NA
barium	200	47.60B	41.90B	1.40BJ
calcium	5000	42500.00	42600.00	ND
iron	100	45.80B	101.00	ND
lead	3	3.30J	4.00J	2.20BJ
magnesium	5000	7100.00	7130.00	ND
manganese	15	79.5	77.9	ND
potassium	5000	1200.00B	1230.00B	ND
sodium	5000	3450.00B	3460.00B	186.00B
zinc	20	ND	22.60	ND

1 NA = Not applicable  
2 CRQL = Contract-required quantitation limit  
3 ND = Not detected  
4 CRDL = Contract-required detection limit

TCL COMPOUND QUALIFIERS	DEFINITION	INTERPRETATION
J	Indicates an estimated value	Compound value may be semiquantitative
TAL ANALYTE QUALIFIERS	DEFINITION	
B	Value is real, but is above instrument detection limits and below CRDL	Value may be quantitative or semiquantitative
J	Value is above CRDL and is an estimated value because of a QC protocol	Value may be semiquantitative

**TABLE 4**  
**SUMMARY OF SOIL SAMPLE ANALYSES**

[illegible]

blank, and the trip blank, indicating the samples were exposed to acetone during transport or in the laboratory. Of the inorganic substances, aluminum, arsenic, and zinc were detected in either MW01 or the duplicate sample MW02, but not both, indicating poor correlation between the duplicate samples for those analytes.

Lead was detected in sample MW01 at 3.3  $\mu\text{g/L}$  and in the duplicate sample MW02 at 4.0  $\mu\text{g/L}$ , but it was also detected in the field blank sample at 2.2  $\mu\text{g/L}$ . The presence of lead at a concentration comparable to those in MW01 and MW02 indicates that cross contamination may have occurred.

Barium, calcium, iron, magnesium, manganese, potassium, and sodium were detected at comparable levels in MW01 and MW02. These analytes are naturally occurring. Although these substances may be entering ground water from the site, their presence cannot be attributed to the site without a representative background sample. Because the other shallow monitoring wells were removed or damaged, no background sample for MW01 could be collected during the SSI.

### **3.3.3 Soil Samples**

Significant findings of soil sample analyses listed in Table 1 include those substances present in on-site soil samples at levels exceeding three times the concentrations detected in the background sample SS01. Sample SS09 was the most contaminated sample, it contained 259,000 milligrams per kilogram (mg/kg) (about 25 percent) lead. The high lead concentration and the physical appearance of the sample indicate that SS09 consisted of the leaded coal waste.

Elevated levels of phenanthrene, fluorene, benzo(a)anthracene, benzo(b)fluoranthene, and benzo(k)fluoranthene were detected in on-site soil samples SS09 and SS11. These polynuclear aromatic hydrocarbons (PAH) may also be attributable to the coal waste deposited on site. One pesticide, gamma BHC, was detected at 8.5 mg/kg in sample SS06. Because SS06 was collected in a cultivated area of the site, its presence may be attributable to farming practices. Relatively low concentrations of aldrin, 4,4'-DDE, endosulfan sulfate, and 4,4'-DDT in samples SS09 and SS11 may be attributable to agricultural runoff from nearby cultivated areas on site.

Concentrations of several metals in addition to lead were above three times the background sample SS01 concentrations. Barium was most concentrated in SS09, the coal waste sample, at 583 mg/kg. SS09 also contained the highest concentrations of copper (83.1 mg/kg) and zinc (1,680 mg/kg). SS08 contained a high concentration of magnesium, reported at 22,000 mg/kg. Mercury was elevated in several samples, although not significantly. The highest concentration of mercury was detected in SS12 at 0.34 mg/kg.

TABLE 4  
SUMMARY OF SOIL SAMPLE ANALYSES

SAMPLE NUMBER	SS01 (Background)	SS02	SS03	SS04	SS05	SS06	SS07	SS08	SS09	SS10	SS11	SS12
TIME	1620	1030	1145	1450	1500	1510	1520	1545	1605	1555	1650	1645
DATE	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92	01/22/92
Organic Traffic Report No	ERD33	ERD34	ERD35	ERD36	ERD37	ERD38	ERD39	ERD40	ERD41	ERD42	ERD43	ERD44
Inorganic Traffic Report No	MENE74	MEKH65	MENE75	MEKH66	MEKH67	MEKH68	MEKH69	MENE76	MENE77	MENE78	MENE79	MENE80
ANALYTE DETECTED CRDL (mg/Kg)												
aluminum	40	8500.00	2800.00	10700.00	3640.00	4030.00	3540.00	2710.00	3610.00	4900.00	5430.00	10500.00
antimony	12	ND	ND	ND	2.00EJ	2.80EJ	ND	ND	ND	2.00EJ	ND	ND
arsenic	2	13.7	5.9	9.6	1.60E	6.60	1.70E	3.0	2.60	7.10	5.30	11.1
barium	40	87.60	13.30E	87.30	24.90E	27.30E	20.20E	18.50E	55.50	563.00	69.70	121.00
beryllium	1	0.65E	ND	0.49E	ND	ND	ND	ND	0.44E	0.44E	0.52E	0.54E
cadmium	1	0.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.74E
calcium	1000	8790.00J	7850.00J	18900.00J	6880.00EJ	1820.00J	387.00J	1290.00J	42100.00J	8010.00J	18400.00J	15100.00J
chromium	2	12.50	3.80	15.40	4.40	5.10	2.10E	3.00	6.90	27.90	6.50	14.60
cobalt	10	6.60	1.70EJ	13.50	1.60EJ	1.50EJ	1.00EJ	1.60EJ	2.20EJ	5.40E	4.90E	6.90E
copper	5	24.40	18.20	32.70	4.80EJ	10.70	41.10EJ	6.20EJ	16.00	83.10	20.30	34.00
iron	20	12700.00J	6960.00J	22800.00J	3690.00J	7130.00J	3550.00J	3900.00J	5090.00J	18200.00J	8330.00J	11600.00J
lead	0.6	30.20	21.70J	23.50	11.70J	109.00	60.20	1030.00	21900.00	259000.00	8440.00	298.00
magnesium	1000	1880.00J	4110.00J	8850.00J	439.00EJ	397.00EJ	324.00EJ	424.00EJ	22000.00J	2810.00	1070.00J	6820.00J
manganese	3	61.60J	73.30J	534.00J	57.60J	51.60J	24.30J	38.25J	73.50J	500.00J	156.60J	141.00J
mercury	0.1	ND	0.15	0.12	ND	ND	ND	ND	0.11	0.14	ND	0.21
nickel	6	20.80	3.00E	29.10	2.60E	2.40E	2.70E	2.40E	5.40E	34.60	14.00	21.00
potassium	1000	467.00E	274.00E	1530.00	110.00E	224.00E	132.00E	189.00E	222.00E	699.00E	711.00E	806.00E
selenium	1	2.30J	ND	ND	ND	3.00J	ND	ND	ND	ND	ND	2.80J
silver	2	ND	ND	ND	ND	ND	ND	ND	ND	0.50E	ND	ND
sodium	1000	64.80E	30.70E	60.20E	15.90E	18.90E	15.90E	31.00E	83.50E	513.00E	67.10E	67.80E
vanadium	10	22.00	5.60E	22.10	3.60E	6.60E	4.60E	6.10E	6.00E	12.30	13.00E	24.70
zinc	4	48.50	105.00	86.10	18.70	209.00	15.50	36.80	179.00	1680.00	156.00	128.00

CRQL = Contract-required quantitation limit

ND = Not detected

NA = Not available

CRDL = Contract-required detection limit

CONFIDENTIAL DRAFT

TCL COMPOUND QUALIFIERS	DEFINITION	INTERPRETATION
J	Indicates an estimated value	Compound value may be semiquantitative
P	This flag is used for pesticide and Aroclor compounds when there is a greater than 25% difference for detected concentrations between two gas chromatograph columns. The lower of the two values is reported.	Value may be semiquantitative and identity of compound may be questionable
X	This qualifier is specific for benzo (b) - and benzo (k) fluoranthene results. The chromatographic resolution did not allow the two compounds to be quantitated separately. The reported value is the combined amount of benzo (b) - and benzo (k) fluoranthene.	The reported is quantitative for the total of these two compounds
TAL ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
N	Duplicate injection precision not met	Value may be semiquantitative
B	Value is real, but is above instrument detection limit and below contract-required detection limit	Value may be quantitative or semiquantitative

Analyses of off-site soil samples SS02 and SS03 do not indicate that site-related hazardous substances have blown off site to neighboring residential properties. Lead, the main contaminant of concern, was less concentrated in SS02 and SS03 than in the background sample SS02; however it was slightly higher than the lowest detected concentration (11.7 mg/kg in SS04). In SS03, calcium, magnesium, manganese, and potassium all exceeded three times background concentrations. However, these substances are all naturally occurring and are not known to be related to site wastes. Mercury was detected in both SS02 and SS03; it may be attributable to pesticides used in the area. On-site concentrations of mercury do not indicate it was deposited as waste.

Although samples SS04, SS05, and SS12 contained some PAHs, concentrations did not exceed contract-required detection limits. In addition, inorganic substances other than those associated with the coal waste were not detected in these soil samples collected near drums. Therefore, contaminants potentially attributable to wastes in those drums are limited to the tentatively-identified compounds.

## **4.0 PATHWAYS**

This section presents information pertaining to pathways and targets of hazardous substances that may be attributable to the Carr site. The four pathways of concern are ground water, surface water, soil exposure, and air.

### **4.1 GROUND-WATER PATHWAY**

Residential and monitoring well samples collected during the SSI do not indicate that hazardous substances have been released from the Carr site to ground water. Although lead was detected in residential well sample RW02, the concentration did not exceed the contract-required detection limit and as such cannot be used to demonstrate that an observed release to ground water has occurred. It is possible that the laboratory achieved lower detection limits, but these are not available in the laboratory reports. The lead in RW02 is at a low concentration and may be attributable to lead water pipes or lead-soldered water pipes in the home, or it may be a spurious laboratory result.

The one monitoring well still in existence was sampled, but the well is only 9 feet deep and water in the well may actually represent a perched water table. This water table is not used for drinking in the area of the site. Therefore, analytical results cannot be used to demonstrate a

release to an aquifer. In addition, no background sample in this perched zone was collected because no background monitoring wells could be located.

The potential exists for hazardous substances to migrate from the site to ground water because no manmade liner exists under the waste disposal areas. The targets for potential ground-water contamination include all persons drinking water from wells located within a 4-mile radius of the site (see Appendix D for a 4-Mile Radius Map).

Surface soils located on the southern portion of the site are of the Wauseon-Ottokee-Spinks Association. These soils are of nearly level, poorly drained, lacustrine sands and sandy soil. Specifically, the soil beneath the landfill area is classified as muck. Muck does not belong to a specific soil series, but it is classified as a poorly drained soil with slow or ponded runoff. Typically reaching thicknesses between 8 and 36 inches, muck contains a high content of organic material underlain by loamy sand or fine sandy loam (USDA, 1966). Because of landfilling activities on the southern portion of the site, it is possible that native soils have been disturbed and would no longer be classified as muck. Bowser-Morner reported that the fill is 3 to 5 feet thick (Bowser-Morner, 1987a).

Surface soils located in other areas of the site belong to the Wauseon Series. These soils are characterized as poorly drained soils with slow to ponded runoff, developed in sandy materials, and tending to have a high silt and clay content. Typically, these soils reach thicknesses between 8 and 43 inches (USDA, 1966).

A fine-textured silt and clay lacustrine deposit underlies the surface soils in the vicinity of the site. These deposits were formed by the wave action of ancient lakes. A beach ridge from these ancient lakes exists at the midsection of the Carr property. The lacustrine deposits average in thickness between 4 and 8 feet (Bowser-Morner, 1987a; USDA, 1966).

A calcareous glacial till underlies the lacustrine deposits. This till was deposited during the Wisconsin glacial epoch, the most recent glacial epoch (USDA, 1966). According to Bowser-Morner and well logs in the area of the site, the till is comprised of clay, silt, sand, and gravel with occasional thin sand and gravel lenses (see Appendix C for well logs in the site area). The thickness of the till averages between 10 and 15 feet (Bowser-Morner, 1987a).

Dolomite and limestone of the Lockport Formation, aging from Silurian and Devonian systems, underlies the glacial till (Bowser-Morner, 1987a; USDA, 1966). Well logs in the site area indicate this bedrock to be a good water-bearing unit. Most wells are screened in the bedrock that lies at depths ranging from 28 to 32 feet below the surface at the site. A geologic profile

developed by Bowser-Morner from boring logs indicates that the bedrock dips to the west across the site.

In conclusion, the soils in the area are sandy and prone to ponding, which minimizes overland migration of on-site contaminants. The south side of the site is a topographic low point and surface water may tend to pond there. The lack of a landfill liner and the existence of relatively permeable sandy lake deposits could augment the lateral and downward migration of on-site contaminants. Finally, the bedrock aquifer, which is the major source of drinking water in the vicinity of the site, lies between 28 and 32 feet below the surface. Based on regional surface topography, this aquifer has a potential ground-water flow of west to northwest.

The city of Bradner uses six municipal wells located 0.75 mile north of the site to supply drinking water within the city limits. These wells are about 300 feet deep and situated in the bedrock aquifer (PRC, 1991).

The approximate total population within a 4-mile radius of the site potentially affected by a release to ground water is 3,868 persons. This population is based on a total of 1,465 houses counted from topographic maps (USGS, 1969) and a density in Wood County of 2.64 persons per household (PRC, 1992) and is inclusive of the population of the city of Bradner. The nearest residence using a private drinking water well is about 500 feet west of the site.

#### **4.2 SURFACE WATER PATHWAY**

No observed release to surface water has been documented at the Carr site. The USGS topographic map indicates that a wetland exists across the southern portion of the site, but site operators have filled most of the area with various wastes. PRC found no evidence during the SSI that wetland conditions and vegetation prevail on any portion of the site. The drainage ditch across the site and along Greensburg Pike south of the site may prevent surface water from ponding enough to maintain wetland vegetation.

Although lead-contaminated coal wastes may have been deposited directly into previous wetland areas, some of the areas had already been filled with construction and other debris. It would be difficult to differentiate between areas where leaded waste was deposited directly into the wetland and areas where the waste was deposited on top of debris. The latter scenario would not constitute a release to surface water.

Based on the site history (see Section 2.2), leaded waste was used to construct the road leading to the north side of the property. Even if the waste was deposited directly into the

wetland to construct the road, the length of road existing in the previous wetland area is less than 0.1 mile, the minimum size for wetlands to be considered surface water bodies by the HRS.

There is no evidence that other surface water bodies may have been or will be impacted by the Carr site. The on-site drainage ditch discharges into the roadside ditch south of the site along Greensburg Pike. During the SSI, PRC observed that the ditch along Greensburg Pike was being excavated. To the west, the ditch enters a culvert under railroad tracks and continues west along Greensburg Pike. There is no clear discharge point of the ditch into the Portage River, about 4 miles west of the site. To the east of the site, the roadside ditch may enter a perennial roadside ditch through a culvert at Route 23. The perennial ditch continues north to Schwan Creek, about 0.75 miles northeast of the site. Schwan Creek is very small and is not likely to support human food chain species or drinking water intakes. No sensitive environments or wetlands exist along Schwan Creek.

The potential for on-site contaminants to discharge into Schwan Creek and Portage River would be reduced by the surface topography in the site vicinity. The area is very flat and surface water flow is expected to be minimal in the roadside ditches.

In addition to drainage features and surface topography, the potential for surface water contamination would be minimized because lead, the main contaminant of concern at the site, is relatively immobile.

#### **4.3 SOIL EXPOSURE PATHWAY**

The hazardous substances identified in surface soils at the site are attributable to the site because of past waste handling practices. In addition, on-site contaminant levels exceed three times the concentrations detected in the background soil sample SS01.

Although the potential existed for on-site contaminants to migrate to nearby residential properties via windblown particulates, soil samples SS02 and SS03, collected from surface soils on residential properties west of the site, did not contain hazardous substances attributable to the site at concentrations exceeding three times background concentrations.

Potential soil exposure pathway targets the site owner, who works at the site and nearby residents who may visit the site. The estimated population within one mile of the site is 1,049 persons. In addition, crops used for the production for commercial livestock exist in areas of observed soil contamination. No terrestrial sensitive environments exist in areas of surficial soil contamination.

The site is not securely fenced. The site has a history of people breaking the front gate lock, trespassing, and dumping garbage.

#### **4.4 AIR PATHWAY**

A release of hazardous substances to the air was not previously reported nor documented during the sampling visit at the Carr site. During the reconnaissance inspection, site-entry instruments did not detect levels above background concentrations at the site. In accordance with the EPA-approved work plan, further air monitoring was not conducted by PRC.

The potential exists for on-site hazardous substances to migrate from the site as windblown particulates or gases. However, the potential is reduced because leaded coal wastes are at least partially covered and drummed wastes have solidified. The total number of people potentially affected by an air release include the estimated 3,868 people residing within a 4-mile radius of the site. In addition, about 10 acres of wetlands exist about 3.5 miles east of the site and would be subject to potential air contamination (USGS, 1969).

## **5.0 REFERENCES**

**Bowser-Morner Associates, Inc. (Bowser-Morner), 1987a, Soil Investigation Report of Carr Landfill, Wood County, Ohio (February 4).**

**Bowser-Morner, 1987b, Groundwater Sampling Carr Landfill, Wood County, Ohio (December 28).**

**Bowser-Morner, 1988, Carr Landfill Clean-Up Work, Wood County, Ohio (May 2).**

**Ohio Environmental Protection Agency (OEPA), 1973a, Interoffice Communication to Ben Chambers, OEPA, NWDO, from John Noyes (September 19).**

**OEPA, 1973b, Letter from Bennet G. Chambers, District Engineer, to E.J. Allen (November 26).**

**PRC Environmental Management, Inc. (PRC), 1991, Interview of Robert Carr, Property Owner, by Jeff Swano (November 7).**

**PRC, 1992a, Record of Telephone Conversation between Jeff Swano and Casey Arnold, AKZO Chemical Company (January 28).**

**PRC 1992b, Record of Telephone Conversation between Jeff Swano and Angele Green, U.S. Census Bureau (June 16).**

**Seneca Wire and Manufacturing Company (Seneca Wire), 1987, Letter to Jennifer Tiell, OEPA, Attorney, from William Stokes, Chief Engineer (March 5).**

**U.S. Department of Agriculture (USDA), 1966, Soil Survey of Wood County Ohio (December).**

**U.S. Environmental Protection Agency (EPA), 1988, Pre-Remedial Strategy for Implementing SARA, Office of Solid Waste and Emergency Response, Directive No. 9345.2-01 (February 12).**

**EPA, 1990, Potential Hazardous Waste Site Preliminary Assessment for the Carr Landfill Site, Completed by Todd Kelleher, OEPA (July 18).**

**United States Geological Survey (USGS), 1969, 7.5 Minute Topographic Map, Bradner, Helena, and Pemberville Quadrangles.**

**Wood County, 1978, Warranty Deed with Dower, Recorder's Office, (February 6).**

**APPENDIX A**  
**EPA POTENTIAL HAZARDOUS WASTE SITE INSPECTION REPORT**  
**FORM 2070-13**



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER  
OHD 886 866 521

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Carr Landfill		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER Greensburg Pike and Bradner Road			
03 CITY Bradner	04 STATE OH	05 ZIP CODE 43406	06 COUNTY Wood	07 COUNTY CODE 173	08 CONG. DIST. 5
09 COORDINATES LATITUDE 41° 18' 43.5"	LONGITUDE 082° 23' 52.0"	10 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G. UNKNOWN			

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 01/22/92 MONTH DAY YEAR	02 SITE STATUS <input type="checkbox"/> ACTIVE <input checked="" type="checkbox"/> INACTIVE	03 YEARS OF OPERATION - 1973 - 1985 BEGINNING YEAR ENDING YEAR UNKNOWN
04 AGENCY PERFORMING INSPECTION (Check all that apply) <input type="checkbox"/> A. EPA <input checked="" type="checkbox"/> B. EPA CONTRACTOR PRC - EMI (Name of Firm) <input type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR (Name of Firm) <input type="checkbox"/> E. STATE <input type="checkbox"/> F. STATE CONTRACTOR (Name of Firm) <input type="checkbox"/> G. OTHER (Specify)		

05 CHIEF INSPECTOR Jeff Swano	06 TITLE Environmental Economist	07 ORGANIZATION PRC - EMI	08 TELEPHONE NO. (312) 886-8700
09 OTHER INSPECTORS Keith Foszcz	10 TITLE Engineer	11 ORGANIZATION PRC - EMI	12 TELEPHONE NO. (312) 886-8700
Koreen Ball	Technical Support	PRC - EMI	(312) 886-8700
Kurt Sorenson	Health and Safety Program Coordinator	PRC - EMI	(312) 886-8700
			( )
			( )
13 SITE REPRESENTATIVES INTERVIEWED Robert Carr	14 TITLE Owner	15 ADDRESS 7987 Bradner Rd., Rising Sun, OH 43457	16 TELEPHONE NO. (419) 467-4493
			( )
			( )
			( )
			( )
			( )
			( )
17 ACCESS GAINED BY (Check one) <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT	18 TIME OF INSPECTION 0845	19 WEATHER CONDITIONS Partly sunny, -25°F, occasional precipitation, -3" snowcover.	

IV. INFORMATION AVAILABLE FROM

01 CONTACT Jeanne Griffin	02 OF (Agency/Organization) U.S. EPA	03 TELEPHONE NO. (312) 886-3007
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Jeff Swano	05 AGENCY PRC Environmental Management, Inc.	06 ORGANIZATION (312) 886-8700
	07 TELEPHONE NO. (312) 886-8700	08 DATE 06 / 28 / 92 MONTH DAY YEAR





POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE  
OH

02 SITE NUMBER  
OHD 999 999 521

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION  
03 POPULATION POTENTIALLY AFFECTED: ~ 3888  
02 ☐ OBSERVED (DATE: \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION  
☒ POTENTIAL ☐ ALLEGED

See Section 3.3 and 4.1 in SSI report

01 ☐ B. SURFACE WATER CONTAMINATION  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_  
02 ☐ OBSERVED (DATE: \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION  
☐ POTENTIAL ☐ ALLEGED

See Section 4.2 in SSI report

01 ☒ C. CONTAMINATION OF AIR  
03 POPULATION POTENTIALLY AFFECTED: ~ 3,888  
02 ☐ OBSERVED (DATE: \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION  
☒ POTENTIAL ☐ ALLEGED

See Section 4.4 in SSI report

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_  
02 ☐ OBSERVED (DATE: \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION  
☐ POTENTIAL ☐ ALLEGED

No fire or explosive conditions were noted.

01 ☒ E. DIRECT CONTACT  
03 POPULATION POTENTIALLY AFFECTED: ~ 1,088  
02 ☐ OBSERVED (DATE: \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION  
☒ POTENTIAL ☐ ALLEGED

See Sections 3.2.3, 3.3.3, and 4.3 in SSI report

01 ☒ F. CONTAMINATION OF SOIL  
03 AREA POTENTIALLY AFFECTED: ~ 6  
(Acres)  
02 ☒ OBSERVED (DATE: 1/22/92)  
04 NARRATIVE DESCRIPTION  
☐ POTENTIAL ☐ ALLEGED

See Sections 3.2.3, 3.3.3, and 4.3 in SSI report

01 ☒ G. DRINKING WATER CONTAMINATION  
03 POPULATION POTENTIALLY AFFECTED: ~ 3888  
02 ☐ OBSERVED (DATE: \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION  
☒ POTENTIAL ☐ ALLEGED

See Section 4.1 in SSI report

01 ☒ H. WORKER EXPOSURE/INJURY  
03 POPULATION POTENTIALLY AFFECTED: 1  
02 ☐ OBSERVED (DATE: \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION  
☒ POTENTIAL ☐ ALLEGED

See Sections 4.3 in SSI report

01 ☒ I. POPULATION EXPOSURE/INJURY  
03 POPULATION POTENTIALLY AFFECTED: ~ 1,088  
02 ☐ OBSERVED (DATE: \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION  
☒ POTENTIAL ☐ ALLEGED

See Section 4.3



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE  
OH

02 SITE NUMBER  
OHD-888-888 521

II. HAZARDOUS CONDITIONS AND INCIDENTS *(Continued)*

01 ☐ J. DAMAGE TO FLORA  
04 NARRATIVE DESCRIPTION

No damage to flora was noted.

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ K. DAMAGE TO FAUNA  
04 NARRATIVE DESCRIPTION *(include names of species)*

No damage to flora was noted.

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☒ L. CONTAMINATION OF FOOD CHAIN  
04 NARRATIVE DESCRIPTION

See Section 4.3 in SSI report

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES  
*(Spills/Leaks/Overloading Drums, Loading Drums)*

03 POPULATION POTENTIALLY AFFECTED ~ 1,088

See Section 4.3 in SSI report

02 ☒ OBSERVED (DATE: 1/22/92)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ N. DAMAGE TO OFFSITE PROPERTY  
04 NARRATIVE DESCRIPTION

Damage to off-site property was not noted.

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs  
04 NARRATIVE DESCRIPTION

No sewers, storm drains, or wastewater treatment plants receive site effluent.

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING  
04 NARRATIVE DESCRIPTION

See Section 2.2 in SSI report

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☒ ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None

III. TOTAL POPULATION POTENTIAL AFFECTED: ~ 3,888

IV. COMMENTS

None

V. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

PRC Screening Site Inspection Report



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER OH 999-999 921

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input type="checkbox"/> A. NPDES				
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE (Specify)				
<input type="checkbox"/> H. LOCAL (Specify)				
<input type="checkbox"/> I. OTHER (Specify)				
<input checked="" type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT (Check all that apply)	05 OTHER
<input type="checkbox"/> A. SURFACE IMPOUNDMENT			<input type="checkbox"/> A. INCINERATION	<input checked="" type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	One
<input checked="" type="checkbox"/> C. DRUMS, ABOVE GROUND	- 16	drum w/pails	<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input checked="" type="checkbox"/> F. LANDFILL	- 180	cubic yards	<input type="checkbox"/> F. SOLVENT RECOVERY	06 AREA OF SITE
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER (Specify)	6 (Acres)
<input type="checkbox"/> I. OTHER (Specify)				

07 COMMENTS

See Sections 2.0 and 3.0 in SSI report

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)
<input type="checkbox"/> A. ADEQUATE, SECURE <input type="checkbox"/> B. MODERATE <input checked="" type="checkbox"/> C. INADEQUATE, POOR <input type="checkbox"/> D. INSECURE, UNSOUND, DANGEROUS
02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.
See Section 3.0 in SSI report

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
02 COMMENTS
See Section 3.1 in SSI report

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PRC Screening Site Inspection Report
--------------------------------------



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 5 - WASTE, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE  
OH

02 SITE NUMBER  
OHD 988 988 521

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY  
(Check as appropriate)

SURFACE

WELL

ENDANGERED

AFFECTED

MONITORED

COMMUNITY

A ☐

B ☒

A. ☐

B. ☐

C ☒

A 75 (mi)

NON-COMMUNITY

C ☐

D. ☒

D. ☐

E. ☐

F ☐

B 500 (ft)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING

☐ B. DRINKING

(Other sources available)

☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION

(Limited other sources available)

☐ D. NOT USED, UNUSEABLE

COMMERCIAL, INDUSTRIAL, IRRIGATION

(No other water sources available)

02 POPULATION SERVED BY GROUND WATER ~3888

03 DISTANCE TO NEAREST DRINKING WATER WELL 500 (ft)

04 DEPTH TO GROUNDWATER

~28 (ft)

05 DIRECTION OF GROUNDWATER FLOW

West to Northwest

06 DEPTH TO AQUIFER  
OF CONCERN

~28 (ft)

07 POTENTIAL YIELD  
OF AQUIFER

25-100 (gpd)

08 SOLE SOURCE AQUIFER

☐ YES ☒ NO

09 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)

See Appendix D of SSI report

10 RECHARGE AREA

☒ YES

COMMENTS  
See Section 4.1

☐ NO

11 DISCHARGE AREA

☒ YES

COMMENTS  
See Section 4.1

☐ NO

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☐ A. RESERVOIR, RECREATION  
DRINKING WATER SOURCE

☐ B. IRRIGATION, ECONOMICALLY  
IMPORTANT RESOURCES

☐ C. COMMERCIAL, INDUSTRIAL

☒ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:

AFFECTED

DISTANCE TO SITE

☐

(mi)

☐

(mi)

☐

(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE

TWO (2) MILES OF SITE

THREE (3) MILES OF SITE

A. ~1088

B. ~1862

C. ~2992

NO. OF PERSONS

NO. OF PERSONS

NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION

500 (ft)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE

~800

04 DISTANCE TO NEAREST OFF-SITE BUILDING

500 (ft)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

See Section 4.0 in SSI report



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 5 - WASTE, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE  
OH

02 SITE NUMBER  
OHD 888 888 621

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A.  $10^{-6} - 10^{-8}$  cm/sec ☒ B.  $10^{-4} - 10^{-6}$  cm/sec ☐ C.  $10^{-4} - 10^{-3}$  cm/sec ☐ D. GREATER THAN  $10^{-3}$  cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE  
(Less than  $10^{-6}$  cm/sec) ☐ B. RELATIVELY IMPERMEABLE  
( $10^{-6} - 10^{-8}$  cm/sec) ☒ C. RELATIVELY PERMEABLE  
( $10^{-3} - 10^{-4}$  cm/sec) ☐ D. VERY PERMEABLE  
(Greater than  $10^{-2}$  cm/sec)

03 DEPTH TO BEDROCK

~ 28 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

.75 (ft)

05 SOIL pH

Unknown

06 NET PRECIPITATION

3 (in)

07 ONE YEAR 24-HOUR RAINFALL

2.28 (in)

08 SLOPE

SITE SLOPE

50 %

DIRECTION OF SITE SLOPE

Northwest

TERRAIN AVERAGE SLOPE

.40 %

09 FLOOD POTENTIAL

10

SITE IS NOT IN A FLOODPLAIN

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5-acre minimum)

ESTUARINE

A. (mi)

OTHER

B. 3.5 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

> 4 (mi)

ENDANGERED SPECIES. None

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

A. 5 (mi)

RESIDENTIAL AREAS, NATIONAL/STATE PARKS  
FORESTS, OR WILDLIFE RESERVES

B. > 4 (mi)

AGRICULTURAL LANDS  
PRIME AG LAND AG LAND

C. (mi) D. on site (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

See Section 2.0 in SSI report.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

U.S. Dept. of Commerce, 1988. Climatic Atlas of the United States  
PRC Screening Site Inspection Report  
Ohio Dept. of Natural Resources, 1988 Ground Water Resources of Wood County



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE  
OH

02 SITE NUMBER  
OHD 999 999 921

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	6	Central Regional Laboratory; Skinner and Sherman; S-Cubed; Laucks Testing Labs	Received
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	12	Skinner and Sherman; Laucks Testing Labs	Received
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF <u>PRC - EMI Files</u> <small>(Name of organization or individual)</small>
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS <u>PRC - EMI Files</u>

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

None

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PRC Screening Site Inspection Report



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE  
OH

02 SITE NUMBER  
OHD 988 988 521

II. CURRENT OWNER(S)

PARENT COMPANY (if applicable)

01 NAME Robert Carr			02 D + S NUMBER		08 NAME			09 D + S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 7987 Brodner Road			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY Rising Sun		06 STATE OH	07 ZIP CODE 43408		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D + S NUMBER		08 NAME			09 D + S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D + S NUMBER		08 NAME			09 D + S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D + S NUMBER		08 NAME			09 D + S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	

III. PREVIOUS OWNER(S) (List most recent first)

IV. REALTY OWNER(S) (if applicable; list most recent first)

01 NAME Elden J. Allen			02 D + S NUMBER		08 NAME			09 D + S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY Rising Sun		06 STATE OH	07 ZIP CODE 43408		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D + S NUMBER		08 NAME			09 D + S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D + S NUMBER		08 NAME			09 D + S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PRC Screening Site Inspection Report



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER  
OHD 988-988 521

II. CURRENT OPERATOR *(Provide if different from owner)*

OPERATOR'S PARENT COMPANY *(if applicable)*

01 NAME			02 D + B NUMBER		10 NAME			11 D + B NUMBER					
03 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>				04 SIC CODE		12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>				13 SIC CODE			
05 CITY			06 STATE		07 ZIP CODE		14 CITY			15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER											

III. PREVIOUS OPERATOR(S) *(List most recent first; provide only if different from owner)*

PREVIOUS OPERATOR'S PARENT COMPANY *(if applicable)*

01 NAME			02 D + B NUMBER		10 NAME			11 D + B NUMBER					
03 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>				04 SIC CODE		12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>				13 SIC CODE			
05 CITY			06 STATE		07 ZIP CODE		14 CITY			15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD											

01 NAME			02 D + B NUMBER		10 NAME			11 D + B NUMBER					
03 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>				04 SIC CODE		12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>				13 SIC CODE			
05 CITY			06 STATE		07 ZIP CODE		14 CITY			15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD											

01 NAME			02 D + B NUMBER		10 NAME			11 D + B NUMBER					
03 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>				04 SIC CODE		12 STREET ADDRESS <i>(P.O. Box, RFD #, etc.)</i>				13 SIC CODE			
05 CITY			06 STATE		07 ZIP CODE		14 CITY			15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD											

V. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

PRC Screening Site Inspection Report



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE OH	02 SITE NUMBER OHD 888 888/521
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II. ON-SITE GENERATOR

01 NAME		02 D + S NUMBER	
03 STREET ADDRESS (P O Box, RFD #, etc.)		04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	

III. OFF-SITE GENERATOR(S)

01 NAME Seneca Wire & Manufacturing Co.		02 D + S NUMBER		01 NAME		02 D + S NUMBER	
03 STREET ADDRESS (P O Box, RFD #, etc.) 319 South Vine St P O Box 8		04 SIC CODE		03 STREET ADDRESS (P O Box, RFD #, etc.)		04 SIC CODE	
05 CITY Painesville	06 STATE OH	07 ZIP CODE 44830		05 CITY	06 STATE	07 ZIP CODE	
01 NAME Hanna Chemical Coatings Corp.		02 D + S NUMBER		01 NAME		02 D + S NUMBER	
03 STREET ADDRESS (P O Box, RFD #, etc.) 1313 Windsor Ave.		04 SIC CODE		03 STREET ADDRESS (P O Box, RFD #, etc.)		04 SIC CODE	
05 CITY Columbus	06 STATE OH	07 ZIP CODE		05 CITY	06 STATE	07 ZIP CODE	

IV. TRANSPORTER(S)

01 NAME		02 D + S NUMBER		01 NAME		02 D + S NUMBER	
03 STREET ADDRESS (P O Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P O Box, RFD #, etc.)		04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		05 CITY	06 STATE	07 ZIP CODE	
01 NAME		02 D + S NUMBER		01 NAME		02 D + S NUMBER	
03 STREET ADDRESS (P O Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P O Box, RFD #, etc.)		04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE		05 CITY	06 STATE	07 ZIP CODE	

V. SOURCES OF INFORMATION (Cite specific references, e.g., store files, sample analysis, reports)

PRC Screening Site Inspection Report



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE  
OH

02 SITE NUMBER  
OHD 888 888 521

II. PAST RESPONSE ACTIVITIES

01 ☐ A WATER SUPPLY CLOSED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ B TEMPORARY WATER SUPPLY PROVIDED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ C PERMANENT WATER SUPPLY PROVIDED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ D SPILLED MATERIAL REMOVED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☒ E. CONTAMINATED SOIL REMOVED  
04 DESCRIPTION

02 DATE 1/88

03 AGENCY \_\_\_\_\_

See Section 2.2

01 ☐ F. WASTE REPACKAGED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☒ G. WASTE DISPOSED ELSEWHERE  
04 DESCRIPTION

02 DATE 1/88

03 AGENCY \_\_\_\_\_

See Section 2.2

01 ☐ H. ON SITE BURIAL  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ I. IN SITU CHEMICAL TREATMENT  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ J. IN SITU BIOLOGICAL TREATMENT  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ K. IN SITU PHYSICAL TREATMENT  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ L. ENCAPSULATION  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ M. EMERGENCY WASTE TREATMENT  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ N. CUTOFF WALLS  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ P. CUTOFF TRENCHES/SUMP  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ Q. SUBSURFACE CUTOFF WALL  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE  
OH

02 SITE NUMBER  
OHD 888 888 821

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ S. CAPPING/COVERING  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ T. BULK TANKAGE REPAIRED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ U. GROUT CURTAIN CONSTRUCTED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ V. BOTTOM SEALED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ W. GAS CONTROL  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ X. FIRE CONTROL  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ Y. LEACHATE TREATMENT  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ Z. AREA EVACUATED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ 1. ACCESS TO SITE RESTRICTED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ 2. POPULATION RELOCATED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ 3. OTHER REMEDIAL ACTIVITIES  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PRC Screening Site Inspection Report



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE  
OH

02 SITE NUMBER  
OHD 999 999 521

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

None

III. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

PRC Screening Site Inspection Report

**APPENDIX B**  
**PHOTOGRAPHIC LOG**



Photograph No.: 1

Orientation: North

Description: Seven 55-gallon drums, several abandoned vehicles, and scrap piles on the east side of the barn, one of which had a label marked Hanna Chemical Corporation

Location: Barn area

Date: 11/07/91



Photograph No.: 2

Orientation: West

Description: Scrap piles consisting of steel and plastic objects

Location: Barn area

Date: 11/07/91



Photograph No.: 3  
 Orientation: West  
 Description: One open 35-gallon drum containing oily material

Location: Barn area  
 Date: 11/07/91



Photograph No.: 4  
 Orientation: North  
 Description: Two green drums on their sides, with white lettering, containing solid material, one of which was open

Location: Barn area  
 Date: 11/07/91



**Photograph No.: 5**  
**Orientation: West**  
**Description: Two bulging drums that contained solid material**

**Location: Main access road**  
**Date: 11/07/91**



**Photograph No.: 6**  
**Orientation: West**  
**Description: One bulging drum that was open**

**Location: Main access road**  
**Date: 11/07/91**



Photograph No.: 7

Orientation: West

Description: One bulging drum similar to Hanna Chemical Corporation drum

Location: Main access road

Date: 11/07/91



Photograph No.: 8

Location: Landfill

Orientation: Southwest

Date: 11/07/91

Description: One drum with a spigot, the bottom of which appeared to have been burned



Photograph No.: 9

Orientation: Southwest

Description: Machinery, electrical poles, and 3-foot gate at the south end of the landfill

Location: Landfill

Date: 11/07/91



Photograph No.: 10

Orientation: North

Description: The 3-foot fence that partially surrounds the site

Location: Main access road

Date: 11/07/91



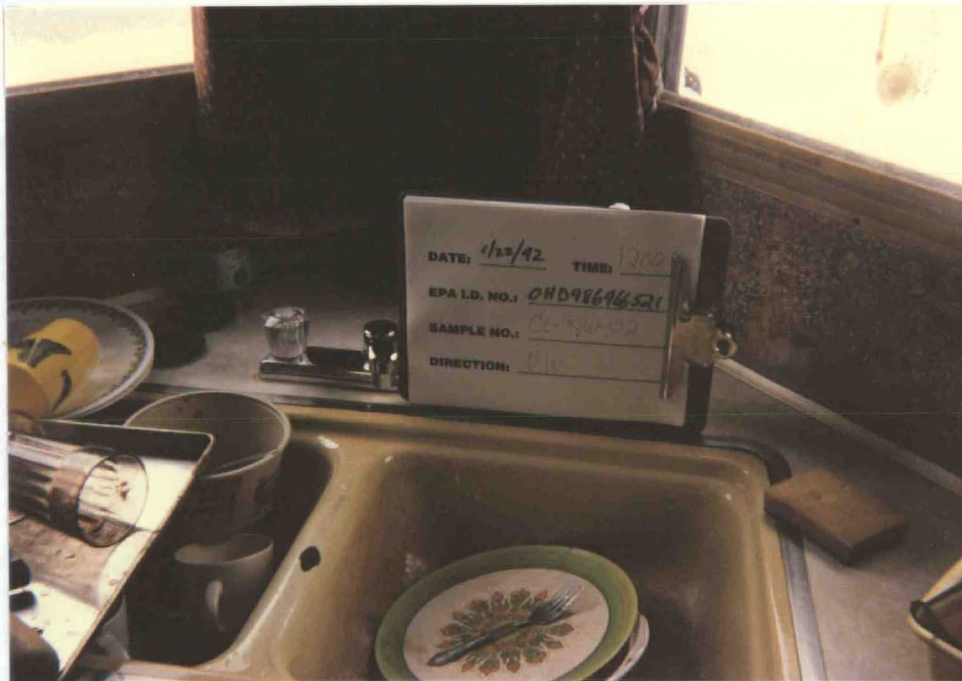
Photograph No.: 11  
Orientation: South  
Description: Close up view of residential well sample RW04 location

Location: RW04  
Date: 01/22/92



Photograph No.: 12  
Orientation: South  
Description: Perspective view of residential well sample RW04 location

Location: RW04  
Date: 01/22/92



Photograph No.: 13  
 Orientation: Northwest  
 Description: Close up view of residential well sample RW02 location

Location: RW02  
 Date: 01/22/92



Photograph No.: 14  
 Orientation: North  
 Description: Perspective view of residential well sample RW02 location

Location: RW02  
 Date: 01/22/92



Photograph No.: 15

Orientation: North

Description: Close up view of monitoring well sample MW01 location; a duplicate sample, MW02, was also collected from this well

Location: MW01

Date: 01/22/92



Photograph No.: 16

Orientation: North

Description: Perspective view of monitoring well sample MW01 location; red building in the background is the Carr livestock barn

Location: MW01

Date: 01/22/92



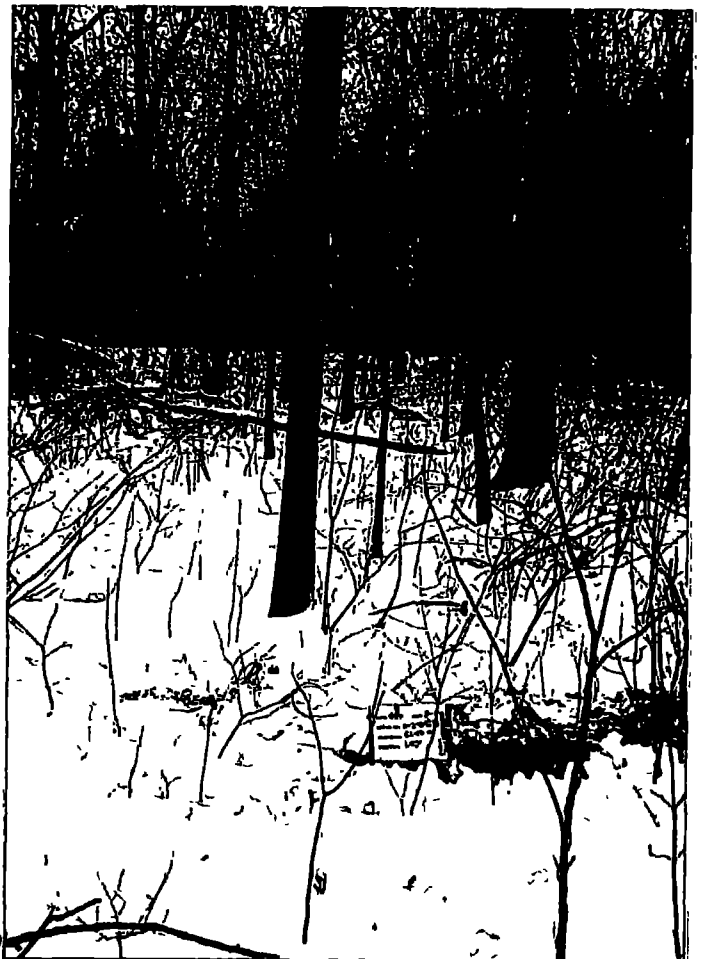
**Photograph No.: 17**

**Orientation: West**

**Description: Close up view of soil sample SS01 location. This is the background soil sample**

**Location: SS01**

**Date: 01/22/92**



**Photograph No.: 18**

**Location: SS01**

**Orientation: West**

**Date: 01/22/92**

**Description: Perspective view of soil sample SS01 location**

**B-9**



Photograph No.: 19  
 Orientation: East  
 Description: Close up view of soil sample SS02 location

Location: SS02  
 Date: 01/22/92



Photograph No.: 20  
 Location: SS02  
 Orientation: East  
 Date: 01/22/92  
 Description: Perspective view of soil sample SS02 location; the Carr livestock barn is in the left far background; the C&O Railroad tracks are in the near background



Photograph No.: 21  
 Orientation: West  
 Description: Close up view of soil sample SS03 location

Location: SS03  
 Date: 01/22/92



Photograph No.: 22  
 Location: SS03  
 Orientation: West  
 Date: 01/22/92  
 Description: Perspective view of soil sample SS03 location. The vehicles are parked just east of Bradner Road.



Photograph No.: 23

Orientation: North

Description: Close up view of soil sample SS04 location; this is one of the seven drums located east of the barn

Location: SS04

Date: 01/22/92



Photograph No.: 24

Orientation: North

Description: Perspective view of soil sample SS04 location; this shows the arrangement of the seven drums

Location: SS04

Date: 01/22/92



Photograph No.: 25

Orientation: North

Description: Close up view of soil sample SS05 location; this is one of the two drums located north of the barn

Location: SS05

Date: 01/22/92



Photograph No.: 26

Orientation: South

Description: Perspective view of soil sample SS05 location; the barn is in the background; note the condition of the fence

Location: SS05

Date: 01/22/92



Photograph No.: 27

Location: SS06

Orientation: East

Date: 01/22/92

Description: Close up view of soil sample SS06 location; this is located in the farm land west of the access road, and due north of the northernmost point of coal waste deposition



Photograph No.: 28

Location: SS06

Orientation: East

Date: 01/22/92

Description: Perspective view of soil sample SS06 location; the access road is approximately 20 feet away at the dark line near the photo's center



Photograph No.: 29

Orientation: West

Description: Close up view of soil sample SS07 location; this is located in the farm land east of the access road

Location: SS02

Date: 01/22/92

Photograph No.: 30

Location: SS07

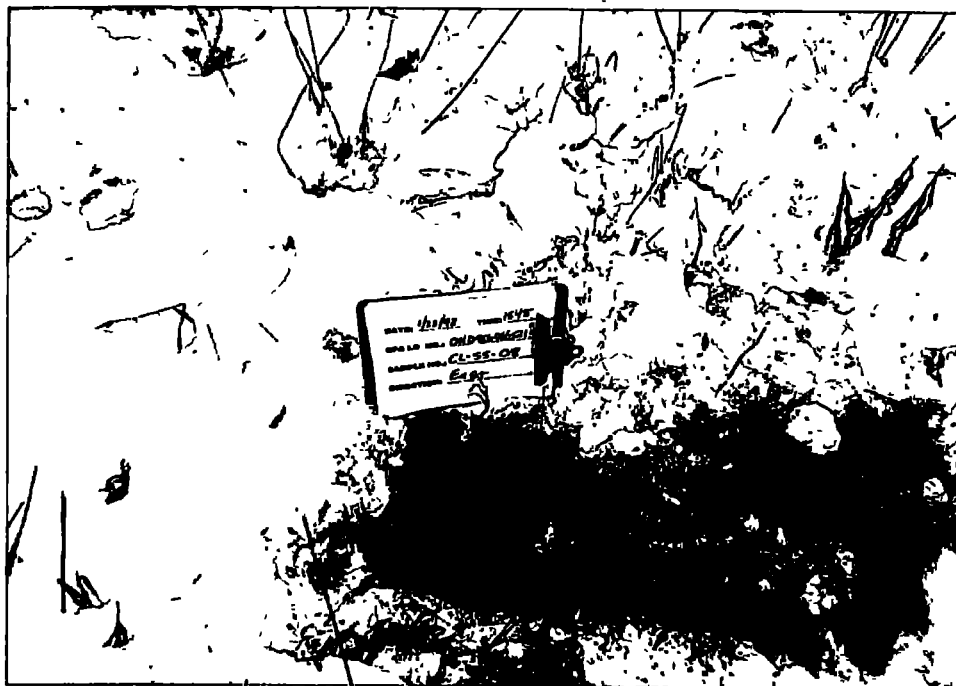
Orientation: West

Date: 01/22/92

Description: Perspective view of soil sample SS07 location; automobile marks access roads location, approximately 20 yards away



B-15



**Photograph No.: 31**

**Orientation: East**

**Description: Close up view of soil sample SS08 location. This is on the west side of the access road**

**Location: SS08**

**Date: 01/22/92**

**Photograph No.: 32**

**Location: SS08**

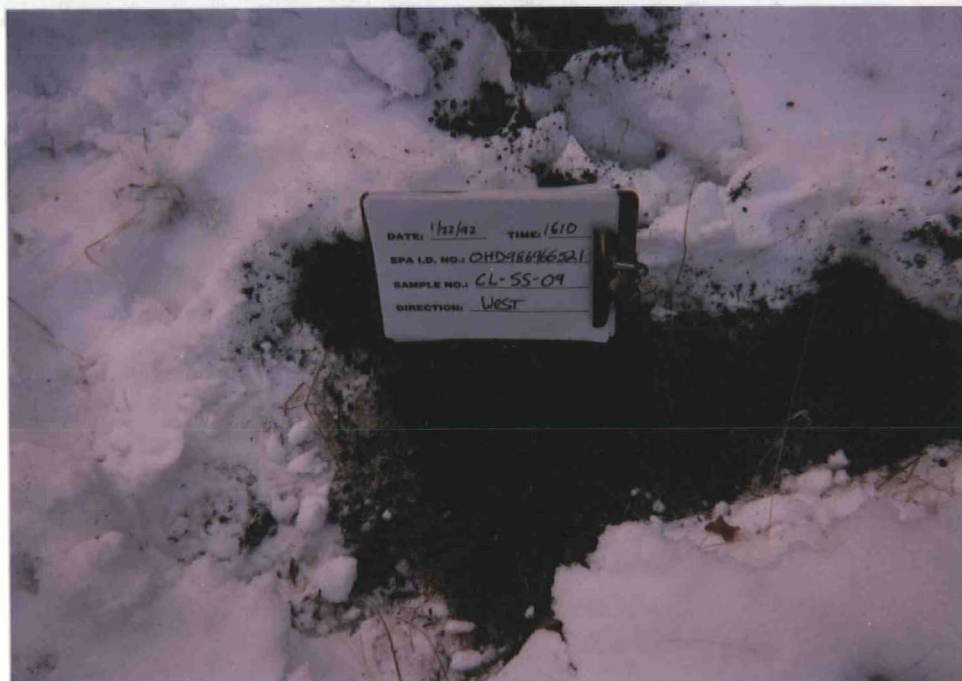
**Orientation: East**

**Date: 01/22/92**

**Description: Perspective view of soil sample SS08 location; automobile marks access road's location, approximately 8 feet away**



**B-16**



Photograph No.: 33

Orientation: West

Description: Close up view of soil sample SS09 location; this is on the east side of the access road near the drainage ditch and culvert

Location: SS09

Date: 01/22/92

Photograph No.: 34

Location: SS09

Orientation: West

Date: 01/22/92

Description: Perspective view of soil sample SS09 location; drainage ditch and culvert are in the background, approximately 4 feet away



B-17



**Photograph No.: 35**

**Orientation: East**

**Description: Close up view of soil sample SS10 location; this is on the west side of the access road**

**Location: SS10**

**Date: 01/22/92**

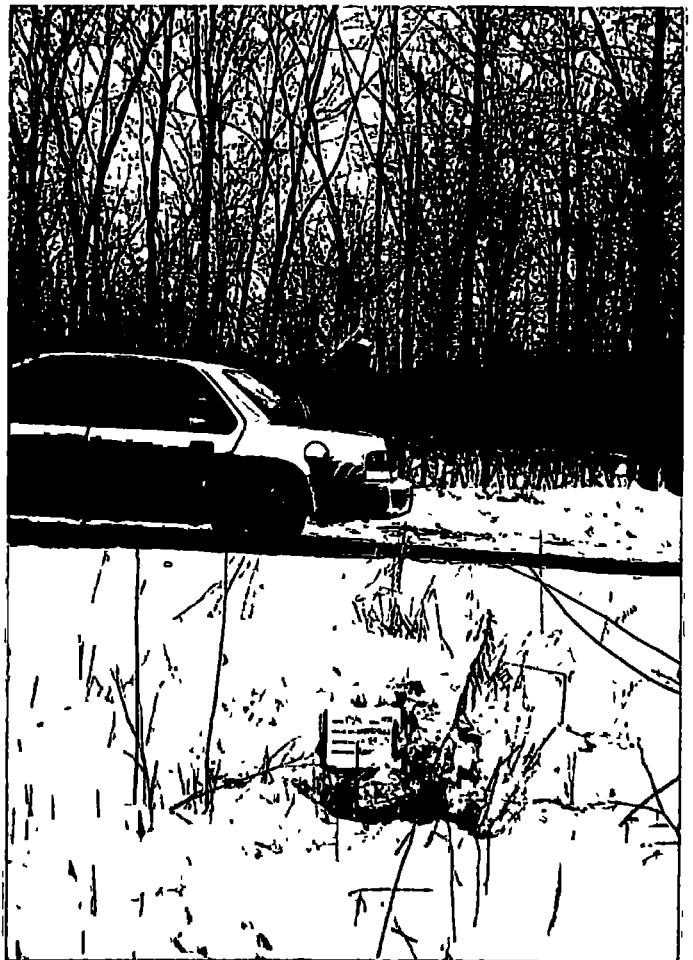
**Photograph No.: 36**

**Location: SS10**

**Orientation: East**

**Date: 01/22/92**

**Description: Perspective view of soil sample SS10 location; access road is approximately 8 feet away**



**B-18**



Photograph No.: 37

Orientation: West

Description: Close up view of soil sample SS11 location; this is on the east side of the access road

Location: SS11

Date: 01/22/92

Photograph No.: 38

Location: SS11

Orientation: West

Date: 01/22/92

Description: Perspective view of soil sample SS11 location; the access road is approximately 7 feet away



B-19



**Photograph No.: 39**

**Location: SS12**

**Orientation: East**

**Date: 01/22/92**

**Description: Close up view of soil sample SS12 location; this is on the west side of the access road near the two drums in Photograph No. 5**



**Photograph No.: 40**

**Location: SS12**

**Orientation: East**

**Date: 01/22/92**

**Description: Perspective view of soil sample SS12 location**

**APPENDIX C**  
**WELL LOGS IN THE SITE AREA**

## WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL  
OR TYPEWRITER  
DO NOT USE INK

State of Ohio  
DEPARTMENT OF NATURAL RESOURCES  
Division of Water  
1562 W. First Avenue  
Columbus, Ohio

No. 233377

County WOOD Township MONTGOMERY Section of Township 11  
Owner \_\_\_\_\_ Address BRADNER  
Location of property 5 OF BRADNER 1/2 MILE

## CONSTRUCTION DETAILS

Casing diameter 4 1/4 Length of casing 45  
Type of screen \_\_\_\_\_ Length of screen \_\_\_\_\_  
Type of pump \_\_\_\_\_  
Capacity of pump \_\_\_\_\_  
Depth of pump setting \_\_\_\_\_  
Date of completion \_\_\_\_\_

## BAILING OR PUMPING TEST

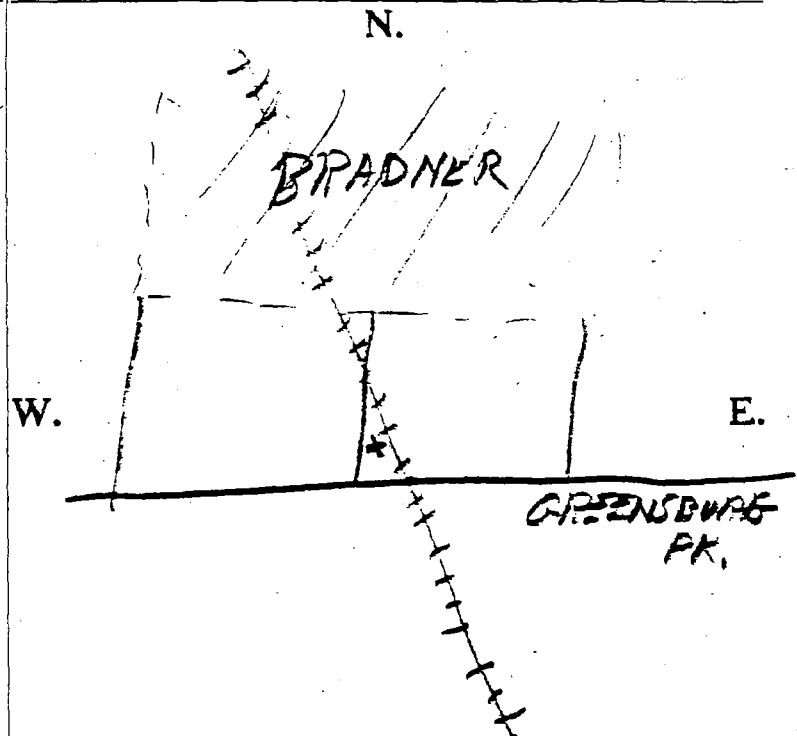
Pumping rate 10 G.P.M. Duration of test \_\_\_\_\_ hrs.  
Drawdown 0 ft. Date \_\_\_\_\_  
Developed capacity \_\_\_\_\_  
Static level—depth to water 15 ft.  
Pump installed by \_\_\_\_\_

## WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
<u>SAND</u>	<u>0 Feet</u>	<u>10 Ft.</u>
<u>CLAY</u>	<u>10</u>	<u>21</u>
<u>LIMESTONE</u>	<u>21</u>	<u>75</u>

## SKETCH SHOWING LOCATION

Locate in reference to numbered  
State Highways, St. Intersections, County roads, etc.



S.

See reverse side for instructions

Drilling Firm PARMENTER DRILLING CO.Date 9-59

Address \_\_\_\_\_ PHONE HE 5-6151

Signed F. Parmenter

631 N. MAIN FOSTORIA, O.

WELL LOG 1

## WELL LOG 2

## WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER  
NECESSARY—  
SELF-TRANSCRIBING

State of Ohio  
DEPARTMENT OF NATURAL RESOURCES  
Division of Water  
65 S. Front St., Rm. 815 Phone (614) 469-2646  
Columbus, Ohio 43215

No. 386191

County Wood Township Montgomery Section of Township 12

Owner Bradner Address Bradner

Location of property Bradner Road + Greensburg Pike

## CONSTRUCTION DETAILS

Casing diameter 4 1/2 Length of casing 37 1/2  
Type of screen \_\_\_\_\_ Length of screen \_\_\_\_\_  
Type of pump \_\_\_\_\_  
Capacity of pump \_\_\_\_\_  
Depth of pump setting \_\_\_\_\_  
Date of completion 10-11-69

BAILING OR PUMPING TEST  
(Specify one by circling)

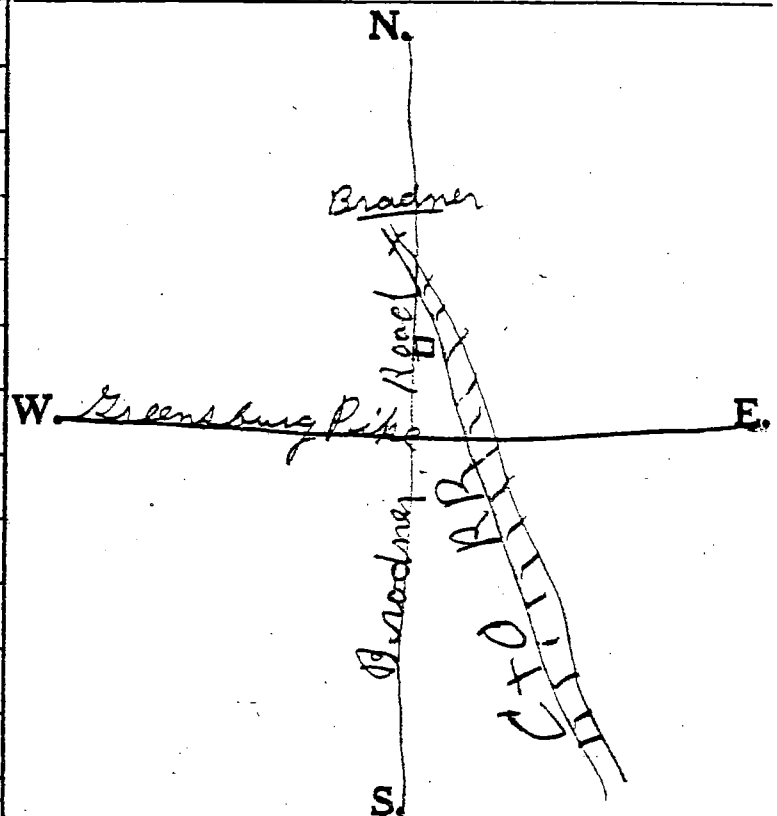
Test Rate 1.5 G.P.M. Duration of test 1 hrs.  
Drawdown None ft. Date 10-10-69  
Static level-depth to water 12 ft.  
Quality (clear, cloudy, taste, odor) Clear  
Pump installed by Plummer

## WELL LOG\*

Formations Sandstone, shale, limestone, gravel and clay	From	To
<u>Sand</u>	0 Feet	10 Ft.
<u>Mud</u>	10	20
<u>Blue clay + Gravel</u>	20	35
<u>Rock</u>	35	90

## SKETCH SHOWING LOCATION

Locate in reference to numbered  
State Highways, St. Intersections, County roads, etc.



Drilling Firm Elin Stahl + Son

Date 10-10-69

Address Kansas @ 610

Signed Elin Stahl

\*If additional space is needed to complete well log, use next consecutive numbered form.

# WELL LOG 3

LOG OF BORING NO. 8

CARR LANDFILL--WOOD COUNTY, OHIO

BORING LOCATION: As shown on boring location plan

DATE STARTED: 10-23-86

GROUND SURFACE ELEVATION: 698.9'

DATE COMPLETED: 10-23-86

DEPTH	DESCRIPTION OF MATERIAL	SAMPLE NO. & TYPE	SAMPLE DEPTH	BLOWS PER 6" ON SAMPLER	"N" BLOWS /FT. OR CORE REC.
0.0'	Brown sandy topsoil, moist				
0.5'	Very loose brown and gray sand, trace of silt, moist	1A	0.0- 1.5	1- 2- 2	4
5'	(Becomes loose at 3.0')	2A	1.5- 3.0	2- 2- 4	6
	(Becomes wet at 4.0')	3A	3.0- 4.5	3- 2- 1	3
5.0'	Loose gray sand, trace of gravel, wet	4A	4.5- 6.0	3- 7-11	18
5.7'	Very stiff gray clay, some silt, some sand, trace of gravel, moist	5A	6.0- 7.5	6- 8-11	19
5'		6A	7.5- 9.0	9-12-18	30
	Bottom of boring at 9.0'				

METHOD: Hollow Augers

TECHNICIAN: BK/CR

BORING NO.: 39514

## WATER OBSERVATIONS

INITIAL DEPTH: \*

COMPLETION DEPTH: None \*\*

DEPTH AFTER: \_\_\_\_\_ HRS. \_\_\_\_\_

## TYPE SAMPLER:

☒ Y A. SPLIT SPOON

☐ B.

☐ C. SHELBY TUBE

\* 4.0' (heavy); 1.5' (medium)

\*\* Taken in augers.

BOWSER - MORNER

WELL LOG 4  
No. 417811

Location of property 1/2 mile East of Comstock in Richman Min.

BAILING OR PUMPING TEST  
(Specify one by circling)

ate of completion. Mar 11, 1971


SKETCH SHOWING LOCATION

Locate in reference to numbered  
State Highways, St. Intersections, County roads, etc.

87

W.

[xi]

well  $\rightarrow$  

25.

Signed John Paul [Signature]

If additional space is needed to complete well log, use next consecutive numbered form.

PLEASE USE PENCIL  
OR TYPEWRITER.  
DO NOT USE INK.

State of Ohio  
DEPARTMENT OF NATURAL RESOURCES  
Division of Water  
1562 W. First Avenue  
Columbus, Ohio

WELL LOG 5

No. 274574

County Wood Township Montgomery Section of Township 9

Owner Board of Public Affairs Address Bradner, Ohio

Location of property 1,000 feet north of Caldwell between  
East and Stahl - Bradner, Ohio

CONSTRUCTION DETAILS

Casing diameter 8 inch Length of casing 48 ft.  
Type of screen..... Length of screen.....  
Type of pump submersible  
Capacity of pump 100 gallon a minute  
Depth of pump setting 260'  
Date of completion October 1<sup>st</sup> 1968

BAILING OR PUMPING TEST

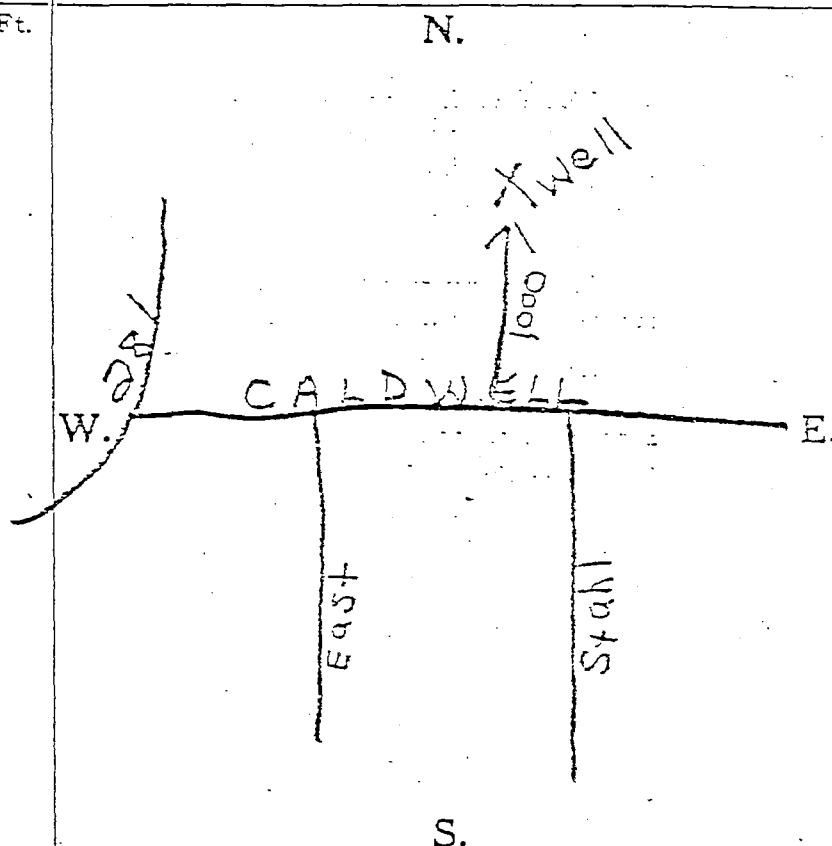
Pumping rate 100 G.P.M. Duration of test 10 hrs.  
Drawdown 75 ft. Date October 1, 1968  
Developed capacity 100 G.P.M.  
Static level—depth to water 10 ft.  
Pump installed by Harry E. Harpster

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
clay	0 Feet	5 Ft.
limestone	3	315

SKETCH SHOWING LOCATION

Locate in reference to numbered  
State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Harry E. Harpster Date October 4, 1968  
Address P.O.#1 Bradner, Ohio Signed Harry E. Harpster

NO CARD IN FILE  
NECESSARY—  
SELF-TRANSCRIBING

State of Ohio  
DEPARTMENT OF NATURAL RESOURCES  
Division of Water  
65 S. Front St., Rm. 815 Phone (614) 453-2646  
Columbus, Ohio 43215

429979  
WELL LOG 6

County Wood Township North Section of Township 10  
Owner James H. Brown Address 2000 N. 10th St.  
Location of property North of Brown Rd. East of 10th St.

### CONSTRUCTION DETAILS

Casing diameter 1 1/2" Length of casing 10'  
Type of screen 1/2" Length of screen 10'  
Type of pump Submersible  
Capacity of pump 10 G.P.M.  
Depth of pump setting 10'  
Date of completion April 15, 1972

### BAILING OR PUMPING TEST (Specify one by circling)

Test Rate 10 G.P.M. Duration of test 10 hrs  
Drawdown 10 ft. Date April 15, 1972  
Static level-depth to water 10 ft.  
Quality (clear, cloudy, taste, odor) Good  
Pump installed by James H. Brown

### WELL LOG\*

Formations Sandstone, shale, limestone, gravel and clay	From	To
<u>Sand</u>	<u>0 Feet</u>	<u>10 Ft.</u>
<u>Clay</u>	<u>10</u>	<u>28</u>
<u>Limestone</u>	<u>28</u>	<u>78</u>

### SKETCH SHOWING LOCATION

Locate in reference to numbered  
State Highways, St. Intersections, County roads, etc.

N.  
CRICKER ST.  
W.  
E.  
Greensburg Pike  
S.

Drilling Firm James H. Brown  
Address 2000 N. 10th St.

Date April 15, 1972  
Signed James H. Brown

\*If additional space is needed to complete well log, use next consecutive numbered form.

2000

DO NOT USE INK

County Wanda Township Wanda Section of Township 14

Owner \_\_\_\_\_ Address 13-14-576

Location of property Quilt South of Beaver on government site

## CONSTRUCTION DETAILS

Casing diameter 4 1/2 Length of casing 35

Type of screen \_\_\_\_\_ Length of screen \_\_\_\_\_

Type of pump Hand Pump

Capacity of pump.

Depth of pump setting 20

Date of completion. Aug 1, 1966

## BAILING OR PUMPING TEST

Pumping Rate 20 G.P.M. Duration of test 2 hrs.

Drawdown 3 ft. Date July 1966

Static level-depth to water 0.14 ft

Quality (clear, cloudy, taste, odor) Clear

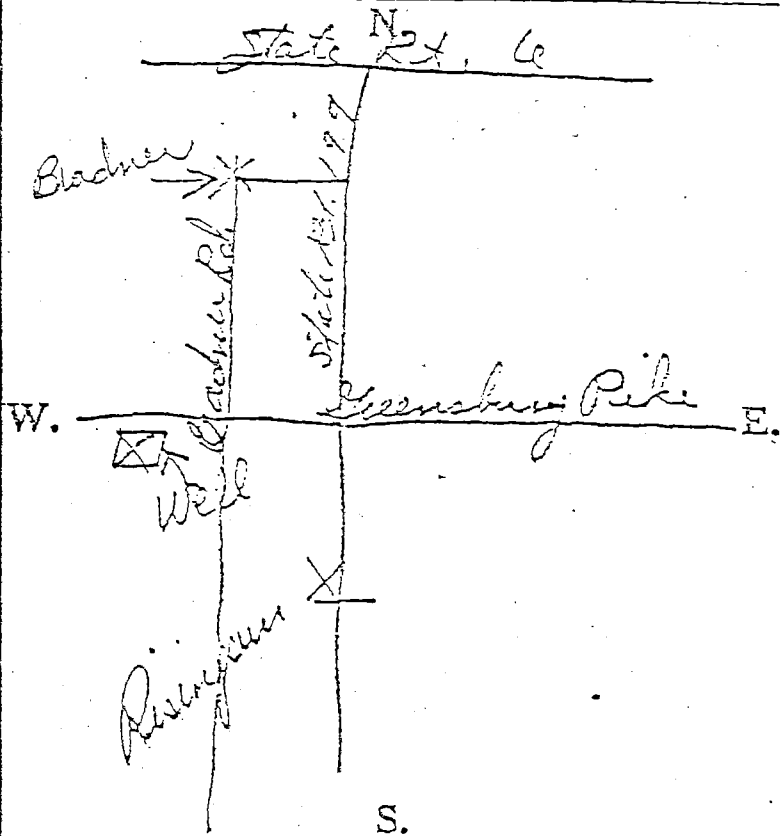
Pump installed by Alvord

## WELL LOG#

[illegible]

SKETCH SHOWING LOCATION

Locate in reference to numbered  
State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Edwin Scott & Son

P.D. # I Kansas, Glad

Date Aug 1, 1966

Signed Robert E. Smith

If additional space is needed to complete well log, use next consecutive numbered lines.

## WELL LOG 8

County Franklin Township Windsor Section of Township 11

OFFICE \_\_\_\_\_ PRESS \_\_\_\_\_

Location of property 1/2 mile South of Graham

## CONSTRUCTION DETAILS

Casing diameter \_\_\_\_\_ Length of casing..... 32

type of screen \_\_\_\_\_ Length of screen \_\_\_\_\_

type of pump.

capacity of pump.

Depth of pump setting.

Date of completion 12/24 27, 1968

## WELL LOG\*

Formations  
Sandstone, shale, limestone,  
gravel and clay

From

To

0 Feet

35<sup>th</sup> Ft.

51

72

72

## BAILING OR PUMPING TEST

Pumping Rate 7 G.P.M. Duration of test 5 hrs.

Drawdown 10.5 ft. Date May 29, 1968

Static level-depth to water 120

Quality (clear, cloudy, taste, odor) Clear

Pump installed by Alper

SKETCH SHOWING LOCATION

Locate in reference to numbered  
State Highways, St. Intersections, County roads, etc.

N.

W. Charles Mack E.

U.

See reverse side for instructions

Drilling Firm Chlor-Alkal Co.

Date Mar 21 1968

Address AKAHI Kona, HI

Signed John C. [illegible]

\*If additional space is needed to complete well log, use next consecutive numbered form.

No. 274000

Date October 20, 1971  
Signed Harry E. Harpster

If additional space is needed to complete well log, use next consecutive number.

**APPENDIX D**  
**4-MILE RADIUS MAP**

